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MANUAL

OF

LIBRARY CLASSIFICATION

AND

SHELF ARRANGEMENT

BY

JAMES D. BROWN

LIBRARIAN, CLERKENWELL PUBLIC LIBRARY, LONDON

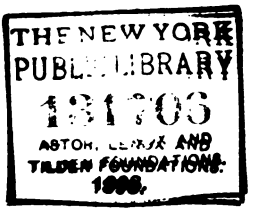
LONDON

LIBRARY SUPPLY COMPANY

4, AVE MARIA LANE, E.C.

1898

M.T.



Printed by Hazell, Watson, & Viney, Ld., London and Aylesbury.

PREFACE

THIS work has been prepared to meet the requirements of those who are engaged or interested in the study of practical library methods. No English book on this subject has been issued since Edwards dealt with classifications generally in his *Memoirs of Libraries*, published in 1859; and the literature of the subject consists of little more than papers on single schemes. Classification has never been a strong point in British libraries, and this has arisen partly from apathy on the part of librarians, but also from the difficulty of obtaining information about American and foreign schemes which have been successfully applied to libraries. Leaving out of view Petzholdt's list of classifications contained in his *Bibliotheca Bibliographica* (1866), I have been unable to find that any single work devoted entirely to a systematic examination of schemes has ever been issued in any country. This little book has been prepared, accordingly, to fill a well-defined space in library literature; and however inadequate or slight the attempt may be, it is earnestly hoped that it will in some measure help to stimulate interest in the subject of classification.

The "Adjustable Classification" has been prepared for the use of municipal public libraries chiefly; but it can be adapted to almost any variety of general library, provided arrangements are made for sub-divisions. Two thousand two hundred and fifty divisions are provided, excluding general heads, while provision is made for four thousand five hundred divisions by means of blanks. Each of these divisions is capable of infinite sub-division. For most ordinary purposes the divisions printed will meet every need.

Suggestions and corrections will be gladly received from any one interested in the subject.

JAMES D. BROWN.

CLERKENWELL PUBLIC LIBRARY, LONDON.
January, 1898.

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CHAPTER I

GENERAL CONSIDERATIONS

1. THE subject of classification has attracted the notice of scholars and practical men alike for nearly four hundred years. Its difficulties and disputed points have furnished exercise and amusement for many minds since the earliest attempt was made to tabulate the branches of human knowledge in a systematic and useful manner. At the end of the nineteenth century, after hundreds of schemes have been submitted as fulfilling every requirement, there is nearly as much diversity of opinion concerning the exact manner of dealing with certain topics as there has been any time during the past three centuries. In one respect, however, there is more unanimity of feeling than ever there was before, and that is as regards the necessity for systematic classification of some kind in every department of human life and effort. We see this more particularly in such departments of learning as Biological Science, Medicine, Chemistry, and in institutions like Museums and Art Galleries, which depend for their educational value and effect upon the system of arrangement adopted.

2. The principle of classification is of almost universal application. It is to be seen in nature on a gigantic scale in the disposition of earth, air, and water, and in the natural laws which govern them. Artificially it has a very good rudimentary exposition in the practice of the costermonger, a familiar object in the streets of our large towns, but nevertheless a classifier of considerable skill. He does not put gooseberries, cherries, and strawberries all together in one

barrow, and sell them mixed under the comprehensive name of "Fruit" at threepence a pound, but carefully divides and keeps them apart under a strict plan of classification. He may sub-divide his main class, "Strawberries," into two sub-classes, "Sir Joseph Paxtons" and "British Queens" respectively, attaching to each different *values*, and he may further sub-divide the "British Queens" into two divisions of different *qualities* at varying prices; while he is certain to adopt an even more minute *quantitative* sub-division by arranging that all the large berries shall be at the top and the small ones at the bottom!

3. With such an example before us of careful and minute classification, selected from the daily practice of a humble commercial class, we should doubtless expect to find in our public libraries a similar and more scientific system of exact classification; not only finding all the books on a given subject together on the shelves, but in close proximity to all other works on related topics. The belief appears to be quite common, at least among educated people, that in English public libraries some method of classification is universal by which all the books on large subjects like Law, Chemistry, Botany, United States, China, Building, Agriculture, Language, etc., are to be found together, not only in the catalogue, but on the shelves. It never seems to enter the mind of an unprofessional person that there can be any doubt on this point, or that books on related subjects in public libraries are not as certain to be kept together as the different articles of merchandise in a large general store. It would be considered by most people who give the matter a thought, just as absurd for a grocer to keep his tea and sugar mixed in one drawer, as for a librarian to mix his botanical books with those on manufactures and perhaps a score of other equally foreign topics. Yet it is the fact that, so far at least as British public libraries are concerned, close classification is just the one thing which does *not* prevail to any great extent.

4. From personal enquiries among librarians, visits to libraries, and a careful study of their catalogues, together with

the information given in *Greenwood's Library Year Book, 1897*, and other authorities, we are enabled to give the following particulars of the methods of arranging books in British libraries, both municipal and semi-public. Out of the two hundred and eighty-seven libraries embraced by our enquiry only thirty-four had classifications which can be described as scientific or minute, and in this number at least sixteen applied the method only to their reference departments. Of the others, only about twelve municipal, or rate-supported, libraries have adopted scientific classification for the arrangement of both lending and reference departments. There are thus two hundred and fifty-three important public libraries which are not classified at all, save in the broadest and most perfunctory manner. As these arrangements of books cannot be correctly described as classifications, along with the more exact and logical systems mentioned later on, it will perhaps be most convenient to dispose of them here.

5. Many reasons have been advanced to account for the extraordinary lack of scientific classification in the United Kingdom as compared with the United States; but it may be affirmed that the chief one has been the employment of underpaid, untrained, and not over-educated librarians in the early days of the public-library movement, when revenues were small and every expense had to be cut down in the most merciless manner. In the absence of scientific models on which to base their practice, these early librarians had each to devise a method of classifying or arranging books to suit local requirements. The principal requirement seems to have been the readiest means of finding the place of a given book when asked for by a certain number, and so arose the many varieties of numerical location systems which we shall briefly describe now, before passing to more general considerations affecting the whole question of classification.

6. It is hardly correct to include in this group of methods the old **Collegiate** plan of press-marking, which still flourishes in many places. But as the original classifications of which this kind of press-marking forms part have long since disappeared

under vast accumulations of books which have had to be stored somehow, it will be as well to give it first place in honour of its hoary antiquity. The system, then, which we have styled collegiate press-marking consisted in the plan of lettering or numbering the presses or alcoves in the library after assigning certain classes of books to each. The separate shelves of each press were numbered or lettered, and each volume on every shelf was differently numbered. This was one of the most minute kinds of this style of classification and shelf-marking. If a tier consisted of six shelves, the marking would be as follows:

PRESS A

Book	1	2	3	4	5	6	etc.				Shelf A
Book	1	2	3	4	5	6	etc.				,, B
All books on											,, C
following shelves											,, D
numbered as											,, E
above.											,, F

Thus, supposing Press A to contain books on Chemistry, and Roscoe's *Chemistry* was the fifth book on the second shelf, it would receive the press mark A B 5. This is a very close direction to the place of a book; but of course the plan is open to dozens of objections, of which the most obvious are that each book is practically *fixed* to a certain place, and congestion of any press or shelf is likely to lead to complete dislocation in the classification. As carried out in the older libraries, this system may fitly be termed one of the classifications which are not classifications. A survival of this plan is

to be seen in a modified form in the British Museum reading-room, where the presses are numbered and the shelves simply lettered A, B, C, etc., in each tier, the books not being numbered in any shelf order. A further development of this style of shelf-marking is described in Section 10.

7. We come now to another group of classification schemes which are not classifications; namely, the methods alluded to in Section 5 as being common to the majority of English public libraries. These we shall name for convenience' sake **Numerical Finding Methods,** as they are indeed but little else. The most rudimentary, and, luckily, also the most uncommon, of these plans is that of numbering the whole of the books in the library in one immense sequence of progressive numbers, each new book receiving the number after the last one already on the shelves. This plan has the undeniable advantage of reducing wear and tear on the librarian's brain to a very fine minimum; it insures considerable ease in the finding of a given book, provided its number is known; and presents the economic advantage of requiring shelf space to be reserved only at one unmistakable place —the end of the sequence. Furthermore the shelf and accession numbers coincide. Otherwise the books have no more arrangement or relation to each other than have the contents of a dust-bin.

8. The form of shelf arrangement most used in English public libraries is a variation of the numerical plan just described, the principal difference being that the library is broken up into six, eight, ten, or more broad classes or divisions, in each of which the books are arranged in a separate series of progressive numbers in the accidental order of their accession. The main divisions generally chosen are:

A. Theology and Philosophy
B. History and Biography
C. Travel and Topography
D. Law, Politics, Commerce, etc.
E. Arts and Sciences
F. Fiction
G. Philology
H. Poetry and the Drama
J. Juvenile Literature
K. Miscellaneous and Magazines

No further sub-division is made, and the books are very much

mixed in every class, as may be seen by the following specimen selected from a typical shelf list:

CLASS C. HISTORY, GEOGRAPHY, ETC.

2569. Pinnock's Rome
2570. Summer Tours in Scotland
2571. Mayhew, Birchington-on-Sea
2572. Scenery of the Lakes
2573. Freeman, English People
2574. Bird, Rocky Mountains
2575. Society in London
2576. Buried Alive in Siberia
2577. Year in Manitoba

No attempt is made to gather in one place all the books on the same countries, and the catalogue is the only guide to the chaos. As regards most of the older catalogues, it may be said here that they were of no value whatever as indexes to the different classes of books. The practical inconvenience of this numerical arrangement may be further illustrated by this example from another library. The novels of Miss Marie Corelli are located in ten different places, as follows—1401–3, 2583–86, 2612, 2926, 2935, 3015–16, 3139–40, 3480–81, 3566, 3729; thus making it impossible for the librarian to tell, without considerable trouble, whether or not any of that novelist's works are available. If, further, any reader wished to examine a few works on Chemistry, he would have to wait till the librarian picked them out of the Science Section, where they are buried and distributed among a thousand other books on fifty or a hundred different subjects. In another library, arranged on this class-numerical plan, thirteen books on London are scattered all over a large division of over four thousand volumes in this order: 617, 651, 931, 937, 949, 1125, 1188, 1209, 1333, 1457, 1463, 3735, 4026. The difficulty of making easy and rapid reference under this distributive plan to books on one subject for a particular fact may be more easily imagined than described. One last example from an Indicator Key will help readers to comprehend the disorder which reigns in the average English public library, where much is sacrificed to the ambition to issue as many books as possible in a given time. This is how the novels stand on the shelves in a particular library; but it may be taken as a fair sample

of the kind of thing existing in most of the others which are arranged on these lines:

1460. Kennard, Straight as a Die
1461. Lawrence, Breaking a Butterfly
1462. Barr, In Spite of Himself
1463. Sue, Mysteries of Paris
1464. Barrie, Window in Thrums

For the information of any one desiring to adopt this plan, it ought to be explained that in libraries using the class-numerical system the numbers given are not necessarily the accession ones, but more likely special shelf numbers. In those libraries which use accession numbers only it is necessary to appropriate a large number of blanks for each division, in order to keep the books in one sequence of numbers on the shelves and on the classified indicator. This plan may be illustrated thus:

Class	A	has	appropriated	to	it	Numbers	1	to 1000
,,	B	,,	,,	,,	,,		1001	to 2000
,,	C	,,	,,	,,	,,		2001	to 4000
,,	D	,,	,,	,,	,,		4001	to 4500
,,	E	,,	,,	,,	,,		4501	to 6000
,,	F	,,	,,	,,	,,		6001	to 10000

And so on all through.

In some other libraries the practice obtains of numbering the books in one series, as described in Section 7, but with the difference that the books of each division are picked out and kept separate, thus presenting a broken order of numbers. Class A, for instance, may be formed of Nos. 56, 99, 301, 857, 1003, etc.; Class B of 1, 10, 15, 36, 47, 98, 101, 175, etc.; and so on. The indicator shows but one series of numbers, and the accession number alone is used for numbering and cataloguing. Of course readers must specify the class letters when asking for books by this system, and the books must be kept in the order of their numbers. It has the advantage over the plan first described in this section, of simplifying stock-keeping, as no numerical shelf registers need be kept, apart from the accessions book.

The arbitrary distinction of size has modified the practice in a few of the older libraries, where, in addition to main divisions

in numerical or alphabetical order, a further sub-division by folio, quarto, octavo, and duodecimo sizes is maintained. Beyond tidiness and enhanced appearance of the shelves, there is little practical benefit in this method, as no one would dream of wasting space by putting folios and octavos together, when methods exist of keeping them apart, yet classified.

9. A more logical method of shelf arrangement than any of the foregoing, though one equally capable of distributing and mixing subjects, is the plan of keeping an alphabetical sequence by names of **Authors**, or, in the case of anonymous books, the first word of the title-pages not an article. As regards Fiction, Poetry, and other *Form Classes*, this has an enormous superiority over all the numerical plans, especially when the books are arranged in broad divisions similar to those set out in Section 8. When the arrangement is an author alphabet in one great sequence, the sole merit is the somewhat important one of displaying and keeping all the works of one author together. In certain branches of study this is important, though an alphabetical catalogue obtains practically the same result. The amount of movement necessary by this system to provide for the proper intercalation of new authors or books is very considerable. For small libraries the author-alphabetical arrangement in broad divisions can be recommended as being easy to apply, and causing no trouble at a later stage of development, when it is thought advisable to adopt one of the modern scientific systems of subject classification. By this plan the accession number is used for cataloguing, charging, and all other purposes, as well as on the indicator, which must be kept in one sequence. Readers asking for books usually fill up forms which specify in very brief terms class, number, author, title. Some librarians have adopted methods of shelf arrangement combining both numerical and alphabetical order; but very few of those using sequential-finding systems are able to claim exact subject classification on the shelves.

10. There are only a few libraries in Britain which are arranged in an orderly array of **Subjects**, without being systematically classified according to a logical scheme like

those described in Chapters III. and IV. Among them the practice of the Mitchell Library, Glasgow, may be described as an example. Its shelves are numbered consecutively throughout in tiers of ten, but no marking is used for the different presses. Each book is numbered in order of receipt in a book of progressive numbers called a Location Book, which has columns ruled to show the shelf number or place of each book as well as its author and title. A certain number of shelves or tiers are assigned to each class of books, and on these shelves a fairly close subject classification is maintained; that is to say, all, or most, of the botanical, architectural, philosophical, and other works will be found together on adjoining shelves, though not necessarily with further subdivisions. It is thus much more minute than the plan described in Section 8, though not so close as the systematic methods described later. To show the difference clearly, it may be as well to repeat that in class-numerical arrangements the books in Class E—Arts and Sciences—form a heterogeneous collection of all kinds of subjects mixed up anyhow in numbered order. Thus books on Music, Football, Building Construction, Botany, Sculpture, Drawing, Pottery, Fireworks, Architecture, Chess, and Watchmaking are all jostling each other in one great procession of numbers. The subject classification we are describing provides for the separation on the shelves of these different subjects in a rough but sufficiently close order. Class E—Arts and Sciences—may therefore have the sciences arranged in sub-classes, like Astronomy, Chemistry, Physics, Zoology, Botany, Geology, Mathematics, etc., so that the difficulties caused by the separation of related subjects would be partly overcome. The accession numbers are used for all purposes, and in cases where assistants do not remember the places of books when asked for, a reference to the book number in the Location Book directs at once to the shelf. The shelf number is also written on the label inside each book, so that there may be no difficulty or mistake about replacement. In the Mitchell Library the plan of giving ten numbers to each tier of shelves has been tried with the object of securing a

certain amount of uniformity. For example, the numbering of the first four tiers, as below, shows that each cross-range of shelves forms part of a decimal order:

Shelf	1	11	21	31
,,	2	12	22	32
,,	4	14	24	34
,,	5	15	25	35
,,	6	16	26	36
,,	7	17	27	37
,,	8	18	28	38
,,	9	19	29	39
,,	10	20	30	40

There being only nine shelves in a tier, the third number is omitted in every ten. The chief advantage claimed for this plan, apart from appearance, is that it aids the memory of assistants in using the shelves.

The first application of this system, sometimes called the "Decimal," seems to have been at Boston, U.S., in 1856, though Edwards[1] states that it was "well known in European libraries for scores of years." However that may be, it is certain that Nathaniel B. Shurtleff was the first to devote a special treatise to the explanation of the system. It is entitled *A Decimal System for the Arrangement and Administration of Libraries, Boston*, 1856, *privately printed*; and besides an exposition of the so-called decimal system, contains a few very elementary hints on library organisation. Shurtleff's idea was to have the books arranged in alcoves containing ten presses or tiers, each of which was to have ten shelves. Without going into details as to certain shelves set apart for special purposes or his method of indicating bottom shelves, it may be said that the arrangement resulted in the shelf number forming in itself a direct reference to both press and shelf. An alcove

[1] *Memoirs of Libraries*, Vol. II., p. 928.

with its one hundred shelves in ten tiers might be numbered thus:

Shelf	101	111	121	
,,	102	112	122	
,,	103	113	123	
,,	104	114	124	
,,	105	115	125	And so on.
,,	106	116	126	
,,	107	117	127	
,,	108	118	128	
,,	109	119	129	
,,	110	120	130	

The books on each shelf are consecutively numbered 1, 2, 3, 4, 5, 6, etc., so that a press mark $\frac{5}{112}$ would mean the fifth book on the second shelf of the eleventh tier or press. The units denote shelves and the tens tiers all through the library, giving in one number a double direction to press and shelf. This is simpler than the collegiate plan described in Section 6, but resembles it in the fixed nature of its shelf notation and the lack of provision for inserting a book between, say, Nos. 3 and 4, supposing it were on the same subject. The system was at one time used in the Boston (U.S.) Public Library; but we are not aware of any place where it has been adopted in its integrity as described by Shurtleff.

The Glasgow system has been described on several occasions as *the* "movable location," in contradistinction to shelf systems, which provide only for the movement of whole classes and not single books. It would render the subject much clearer if the term "movable" were applied to shelf arrangements which do *not* require the press mark to be printed in the catalogue, while the term "fixed" might be reserved for plans

which depend upon the appearance of the press mark in the catalogue. These latter are called "movable" in our opinion, somewhat erroneously, because the fact that the numbers which are printed in the catalogue are those which denote the exact places of books in a fixed sequence of numbers is enough to show that no real movability or adjustability of individual books exists. For example, in a library arranged on the class-numerical plan (Section 8) it is impossible without altering the catalogue, etc., to change the position of any book. If E 596 is a work on History accidentally placed in the Science Class, it cannot be shifted to Class B without upsetting the printed catalogue and all MS. records. By the Glasgow plan, in which the accession number alone is used for cataloguing and all other purposes, any change of class or actual position can be effected by simply altering the shelf number in the Location Book and on the book label. Furthermore it is possible to place all popular books near to the point of service, irrespective of class, which is a very important consideration in large, busy reference libraries.

The following additional particulars of the Mitchell Library shelving system and the results as affecting the service have been sent by Mr. Barrett, the librarian:

"When we were rearranging the library for Miller Street, we went on the principle of breaking up the classification on the shelves in favour of an attempt to bring the books most used into nearness to the point of service. We selected several hundred volumes, including some from each class, and placed these on shelves close at the centre of the counter, where books are issued; these of course are books in constant demand. Next we selected the books in each class which are frequently called for, and arranged these in the long series of bookcases occupying the ground floor of the front building; these number a good many thousands, and they are of course classified on the shelves. The books in less frequent call are placed in the more remote parts of the building—on the walls round the reading hall (we generally put the better-looking books there, simply with a view to appearance), in the gallery,

in the top flat, in the basement. The point I want to bring before you is the outcome of this arrangement as affecting the service. I have had a series of observations made of the time taken to issue a book, counting from the instant a reader places his application paper on the counter to the instant the book is placed in his hands. The observer has a watch with seconds hand, and is instructed to note the time to a second. Naturally the time varies a good deal. Some books kept close at the counter are given out instantly—say, five seconds. Not many are over three minutes. One series of five hundred observations, taken at random of course, gave an average of one minute nine seconds. Another series, by a different observer, gave an average of one minute twelve seconds each issue. For a library of nearly one hundred and thirty thousand volumes, that appears to me to be a very satisfactory result. The larger a library becomes the longer the average time of issue will become, if only from the fact that many of the books must be more or less distant from the point of service."

11. The methods of arranging books on the shelves described in the foregoing sections comprise nearly the whole of the principal varieties used in British public libraries of all kinds. It will now be seen that only four chief methods exist; namely:

1. The Fixed Location (Section 6), by which each book and class is permanently located or placed on a certain shelf or series of shelves in a fixed order, that order being determined by the press marks printed in the catalogue.

2. The Location in Numerical Sequence (Section 8), by which books are placed at haphazard somewhere in a main class without regard to subject, the appearance of the *place* number in the catalogue tending to fix individual books in a rigid order. This method is wrongly termed "movable." It might be better described as "class movable."

3. The Author-alphabetical Arrangement (Section 9) by large classes or in one series.

4. The Subject Location (Section 10), enabling books to be classified in any order and forming a "book movable" plan,

wherein the individual book, and not the whole main class or division, is the unit for arrangement.

None of these methods, excepting the fourth, are systematic classifications of books in a recognised order of subjects and related topics, but simply, as we have already stated, plans whereby books can be found when wanted. There is a certain merit in being able to lay hands readily upon a given book at short notice; but this is considerably minimised when it is known that other systems exist, combining in themselves complete, logical, and scientific classifications with simple and effective finding arrangements. The choice has been before British librarians for over twenty years, but with comparatively few exceptions has seldom been exercised. In the United States and British Colonies, on the contrary, the numerical methods we have described are practically unknown, every library being closely classified according to a scientific system both on the shelves and in most cases in the catalogues as well. The chief argument which has been used against close classification in Britain is that in collections of books not open to direct examination by readers there is no necessity for having books of a sort together; while the catalogue is held to meet every want that an index to a heterogeneous mass of books can supply. We deal with this latter claim in Chapter V.; while as regards the former, may now conclude this chapter with a few general observations in addition to what has already been said on the subject in Sections 1–8.

12. It must be allowed that within the past five or six years a disposition has been manifested among English librarians to consider more closely the claims of systematic classification on the shelves. Where previously a tendency existed to scoff at such accuracy as a vain and unattainable ideal, there is now to be found a spirit of enquiry which will doubtless lead to a complete change of attitude in the future. What has helped towards the formation of this growth of opinion more than anything else has been the appearance and acceptance of various valuable and ingenious American systems, worked out to the smallest detail, completely indexed, and made widely available

through the medium of print. These have, to use a homely phrase, "knocked the wind" out of nearly every objector to close classification, by demonstrating not only its practicability, but also its general simplicity and usefulness. The objections heard against systematic classifications are no longer based upon such points as the impossibility of an all-round agreement being arrived at as to main classes, or the undesirability or difficulty of making one scheme to suit all libraries; but are directed almost entirely to criticism of such details as where in a main class to put given topics. The general acceptance of close classifications for reference libraries tends also to confirm our contention that the principle has been adopted very largely, though considerations of expediency may delay the execution in some libraries for several years. The labour involved in rearranging and properly classifying a large library which has for a long time been growing up in hopeless confusion under some primitive numerical plan, is certain to deter many librarians or committees from undertaking the work. But the gradual adoption of scientific systems here and there in Britain points to the ultimate extension of close classifications to all kinds of libraries.

The plea frequently advanced that in small libraries close classification upon the shelves is unnecessary has scarcely any force in these times, as, owing to the cheapness of books and the increase of means, libraries are growing at a rate hitherto unknown. This is, therefore, a good reason for urging that libraries should be classified from their very foundations in such a way that, when mere topics have grown as large in bulk as original main classes, they shall be found together on the shelves, and not scattered over the whole collection. The practical convenience of this could be illustrated by a hundred instances; but most librarians are painfully aware of the drawbacks, which need not now be recapitulated.[1]

The necessity for training library assistants thoroughly in all that pertains to the educational side of their work points to the

[1] See the *Library* for 1897, p. 143, article on "Cataloguing and Classification," by J. D. Brown.

need for such classificatory systems as will enable them to supply or suggest sources of information as quickly and effectually as possible, and this can only be accomplished by means of an arrangement which gathers as far as possible in one place all books on the same subject. It is only by this means that librarians or assistants can hope to become familiar with the material aspect of books on important subjects, and thereby be tempted to search for information which can only be obtained by enormous labour if the books on a subject are scattered about in several hundreds of different places. In fact it is obvious that, with subjects widely separated in a large library, assistants will be disinclined to hunt for information which can only be found after severe physical exertion by actual examination of books. No catalogue describes books so minutely that readers can obtain a good general idea of their scope and contents, and it is therefore in the public interest that books should be so arranged as to be accessible for easy reference in minute sub-divisions under main classes. The ambition of the modern librarian to be considered a man of learning and method, as expressed at every conference of the Library Association, is another good reason why he should justify his claims by the use of practical scientific systems in place of elementary and inconvenient ones. This sort of simplicity may be all right for an easy start in library methods ; but it is in after-years, when rapid and continuous growth has made libraries into gigantic stores of unclassified and widely distributed books, that the unwisdom of such unmethodical practice is demonstrated. There are plenty of old libraries now, which have grown up in a haphazard way, waiting for complete reorganisation on systematic lines. But the labour involved is too considerable to be lightly faced ; and so the work is postponed, till ultimately it will assume gigantic dimensions, and cost comparatively large sums to execute.

CHAPTER II

THE CLASSIFICATION OF KNOWLEDGE

13. BEFORE proceeding to describe the more important schemes which have been devised for the systematic classification of books in libraries and catalogues, it may be useful to the student to have before him a few simple facts concerning the classification of human knowledge generally. It has a very close relationship to the classification of knowledge contained in books, and so forms part of the subject. The study of nature in all its branches, and the sciences which have resulted in consequence, must at a very early period have turned the attention of enquirers to the necessity for some kind of order in the pursuit of different studies. As knowledge accumulated and observations were recorded, it would be forced upon the understanding of general scientists in early times that, although study of the stars and of plants was investigation of nature, there was nevertheless strong reason for keeping separate accounts of each class of phenomena. To mix facts concerning both in one huge series would certainly be to keep a record of acquired knowledge; but little of the information could be useful, because not kept in a form to show relationships and differences. It has been well said[1] that "the first necessity which is imposed upon us by the constitution of the mind itself is to break up the infinite wealth of nature into groups and classes of things, with reference to their resemblances and affinities, and thus to enlarge the grasp of our mental faculties, even at the expense of sacrificing the minuteness of information

[1] *Treatise on Logic.* By Francis Bowen. (Cambridge, Mass.: 1866.)

which can be acquired only by studying objects in detail. The first efforts in the pursuit of knowledge, then, must be directed to the business of classification." Every student of science is agreed as to this, and from early times various attempts have been made to tabulate and arrange the different kinds of knowledge, either as a whole or in sections. Huxley, altered by Jevons,[1] has defined the process of classification as follows: "By the classification of any series of objects is meant the actual or ideal arrangement together of those which are like and the separation of those which are unlike, the purpose of this arrangement being, primarily, to disclose the correlations or laws of union of properties and circumstances, and, secondarily, to facilitate the operations of the mind in clearly conceiving and retaining in the memory the characters of the objects in question." In most modern works on Logic definitions and explanations are given of classification as applied to science and knowledge generally. One of the most complete treatises of this kind, which students will find of value, is contained in *The Principles of Science: a Treatise on Logic and Scientific Method*, by W. Stanley Jevons (London: 1874), and later editions. Other works which may be profitably read on the subject at large are John Stuart Mill's *Logic*, any recent edition; Jevons' *Logic*; and Fowler's *Inductive Logic*.

14. As regards most of the older classifications of knowledge, the works of Edward Edwards[2] and Julius Petzholdt[3] give full information. The former is very exhaustive in his descriptions and tables; the latter usually gives concise summaries, and, being later, is necessarily more complete than Edwards. From these and other works we have gathered a few brief particulars which will help students to trace the historical development of the classification of knowledge, and enable them to estimate the value of successive efforts and their bearing on the arrange-

[1] *Principles of Science* (Ed. 1892), p. 677.

[2] *Comparative Table of the Principal Schemes proposed for the Classification of Libraries* (Manchester: 1855); and *Memoirs of Libraries* (1859), Vol. II., pp. 761–831.

[3] *Bibliotheca Bibliographica.* (Leipzig: 1866.)

ment of libraries. One of the best and most influential schemes is that of Francis Bacon, Lord Verulam, first issued in 1623. It divides all knowledge into three main divisions, and sub-divides each, as follows:

Bacon's Scheme (1623)

CLASS I. HISTORY (*Memory*)

1. Natural History
2. Civil History
   - *a.* Ecclesiastical
   - *b.* Literary
   - *c.* Civil, Proper

CLASS II. PHILOSOPHY (*Reason*)

1. Science of God
2. Science of Nature
   - *a.* Primary Philosophy
   - *b.* Physics
   - *c.* Metaphysics
   - *d.* Magic
   - *e.* Natural Philosophy
3. Science of Man

CLASS III. POETRY (*Imagination*).

1. Narrative Poetry
2. Dramatic Poetry
3. Allegorical Poetry

In 1767 D'Alembert, the French philosopher, extended this scheme, making it more suitable for the state of science in his day. His main classes and sub-divisions are as follow:

Bacon-D'Alembert (1767)

CLASS I. HISTORY

1. Sacred History
2. Ecclesiastical History
3. Civil History
4. Natural History

CLASS II. PHILOSOPHY

1. General Metaphysics, or Ontology
2. Science of God
   - *a.* Natural Religion
   - *b.* Revealed Religion
   - *c.* Science of Good and Evil
3. Science of Man
   - *a.* Universal Pneumatology
   - *b.* Arts of Thinking, Retaining, Communicating (= Logic, Writing, Printing, Declamation, Symbolism, Grammar, Rhetoric)
   - *c.* Morals (= Ethics, Jurisprudence, Commerce)
4. Science of Nature
   - *a.* Mathematics
   - *b.* Physics

CLASS III. POETRY

1. Narrative Poetry
2. Dramatic Poetry
3. Allegorical Poetry
4. Music, Painting, Sculpture, Architecture, Engraving

Other amplifications of Bacon's scheme have been issued by later authorities; but the most practical is that of W. T.

Harris, described in Section 35, and, with other attempts based on Bacon, is sometimes called the "Inverted Baconian" classification.

15. In the natural sciences, particularly Zoology and Botany, classification has been studied from early times, and numerous methods have been proposed. Many of these were purely artificial, and at one time it was thought that botanical classification was settled for all time by the system of Linnæus. Advances in biological knowledge have, however, completely upset this once-universal classification, which bears a striking analogy to the class-numerical or other empirical methods of book arrangement described in Chapter I. Like them, it is largely arbitrary, and also tends to crystallise and stagnate. As John Stuart Mill observes [1]: "The only purpose of thought which the Linnæan classification serves is that of causing us to remember better than we should otherwise have done the exact number of stamens and pistils of every species of plants. . . . The effect of such a classification, when systematically adhered to, upon our habit of thought, must be regarded as mischievous." There can be little doubt of this so far as book classification in broad numerical divisions is concerned, and the history of the Linnæan classification furnishes another instance of the same kind of confusion resulting from the effort to substitute mere arithmetical progression for intrinsic values and kinds. John Locke, the philosopher, sought to classify all science (in 1688) under three main heads as follows:

Locke's Scheme for Science (1688)

PHYSICS	1. Natural Philosophy; 2. Mental Philosophy; 3. Natural Theology
OPERATIVE SKILL	1. Ethics; 2. Mechanical Art; 3. Fine Arts
SIGN KNOWLEDGE	1. Logic; 2. Language; 3. Rites, Ceremonies, Customs, Fashions, etc.

This has not been adopted, so far as we know, and, like the Linnæan botanical classification, is no longer more than a curiosity.

[1] *System of Logic.*

16. We will pass over the numerous other methods for the classification of all, or scientific, knowledge which come between that of Bacon and Coleridge, as they have very little practical value, though all are of great interest, particularly that of Jeremy Bentham, first published in his *Crestomathia* (1816). The method of Samuel Taylor Coleridge was included in his "Essay on Method," forming the introduction to the *Encyclopædia Metropolitana* (1826); and though it is supposed to have been edited after it left his hands, is presented here in the form which has been preserved:

Coleridge's Scheme (1826)

CLASS I. PURE SCIENCES
1. Formal Sciences
   a. Grammar
   b. Logic
   c. Rhetoric
   d. Mathematics
   e. Metaphysics
2. Real Sciences
   a. Law
   b. Morals
   c. Theology

CLASS II. MIXED AND APPLIED SCIENCES
1. Mechanics
2. Hydrostatics
3. Pneumatics
4. Optics
5. Astronomy
6. Experimental Philosophy
7. Fine Arts
8. Useful Arts
9. Natural History
10. Medicine

CLASS III. HISTORY
1. National History
2. Biography
3. Geography, Voyages, and Travels
4. Chronology

CLASS IV. LITERATURE AND PHILOLOGY

17. The last of the classifications of all knowledge which we shall mention is that published in America by Dr. W. D. Wilson in his *Treatise on Logic* (New York: 1856). Like most of the American methods, this is practical, and more minute than many other previous schemes, though it bears a considerable general likeness to a classification proposed by Lord Lindsay in his *Progression by Antagonism* (London: 1845), which has for its main classes:

I. Revelation
II. Poetry
III. Science
IV. Philosophy
V. Bibliography and Collections

Wilson's method will strike modern librarians as lacking in places for such classes as Language and pure Literature (Poetry is included, but not Fiction, etc.):

W. D. Wilson's Scheme (1856)

CLASS I. THEORETICAL SCIENCES

Section 1. Exact Sciences

1. Meteorology
2. Ouranography
3. Geology
4. Geography
5. Chemistry
6. Mineralogy
7. Anatomy
8. Physiology
9. Botany
10. Zoology
11. Ethnology
12. Psychology
13. History

Section 2. Pure Sciences

1. Arithmetic
2. Geometry
3. Algebra
4. Calculus
5. Trigonometry
6. Analytic Geometry
7. Analytics
8. Method
9. Ontology

CLASS II. PRACTICAL SCIENCES

Section 1. Mixed Sciences

1. Mechanics
2. Astronomy
3. Hydrostatics
4. Hydraulics
5. Pneumatics
6. Acoustics
7. Optics

Section 2. Ethical Sciences

1. Ethics
2. Polity
3. Natural Religion
4. Jurisprudence
5. Ecclesiastical Polity
6. Revealed Religion

CLASS III. PRODUCTIVE SCIENCES OR ARTS

Section 1. Fine Arts

1. Gardening
2. Architecture
3. Sculpture
4. Painting
5. Music
6. Poetry

Section 2. Useful Arts

1. Agriculture
2. Metallurgy
3. Technology
4. Typography
5. Engraving
6. Commerce
7. Medicine
8. Rhetoric
9. Political Economy
10. War

18. As classifications of **Science** are the most difficult, owing to the continual progress of discovery and the changes or modifications thereby introduced, we shall briefly consider a few points likely to be useful to library assistants. The two

principal sciences possessing classifications which to any extent affect the arrangement of books are Zoology and Botany. Nearly every text-book on these subjects has tables, and in accordance with the arrangement therein set forth books may be arranged on the shelves or in the catalogue. The examination papers of the Library Association have on several occasions contained questions such as, "Where in a zoological classification would a book on Beetles go?" "What is meant by Lepidoptera?" etc.; and as there seems to be much need for a series of tables embodying such information in a simple form, we have selected several systems of classification from elementary zoological text-books of old and recent dates which will no doubt be helpful to students of classification. It may be explained that, so far as the classification of biological books is concerned, it matters little whether Zoology or Botany is arranged on the evolutionary principle of progression from lowest to highest forms of life, or from highest to lowest forms. In either case it simply means looking backwards or forwards, and does not affect the question, very frequently enlarged upon, of the arrangement of general text-books to insure that students will begin with the simpler forms of life and work upwards to more complicated forms. The first zoological classification which we shall give is representative of the science as it existed about 1845, and we have ventured to add typical examples of each order to render the nomenclature more intelligible.

Zoological Classification[1]

VERTEBRATES
CLASS MAMMALIA
Order 1. Bimana (Man)
,, 2. Quadrumana (Apes)
,, 3. Cheiroptera (Bats)
,, 4. Insectivora (Insect-eaters)
,, 5. Carnivora (Flesh-eaters: Lions, etc.)
Order 6. Cetacea (Whales, Seals, etc.)
,, 7. Rodentia (Rats, Beavers, Hares)
,, 8. Edentata (Sloths, Pangolins)
,, 9. Ruminantia (Deer, Cattle, Sheep)

[1] From Carpenter's *Zoology*, 2 vols.

Order 10. Pachydermata (Elephants, Horses, Pigs)
,, 11. Marsupialia (Kangaroos, Pouched animals)
,, 12. Monotremata (Egg-laying mammals)

CLASS BIRDS
Order 1. Raptores (Eagles, Vultures, Owls)
,, 2. Insessores (Perching birds, 4 tribes)
,, 3. Scansores (Parrots, Cuckoos)
,, 4. Rasores (Pigeons, Pheasants, Fowls)
,, 5. Cursores (Ostriches)
,, 6. Grallatores (Waders : Bustards, Cranes)
,, 7. Natatores (Swans, Ducks, Gulls)

CLASS REPTILES
Order 1. Chelonia (Turtles)
,, 2. Loricata (Crocodiles)
,, 3. Sauria (Lizards)
,, 4. Ophidia (Snakes)

CLASS BATRACHIA (Frogs)
Order 1. Anura
,, 2. Urodela
,, 3. Amphipneusta
,, 4. Apoda
,, 5. Lepidota

CLASS FISHES
Order 1. Selachii
,, 2. Ganoidei
,, 3. Teleostei
,, 4. Cyclostomi
,, 5. Leptocardi

INVERTEBRATES

CLASS INSECTS
Order 1. Coleoptera (Beetles)
,, 2. Orthoptera (Grasshoppers)
Order 3. Physopoda
,, 4. Neuroptera (Dragonflies)
,, 5. Hymenoptera (Bees, Wasps, Ants)
,, 6. Lepidoptera (Butterflies, Moths)
,, 7. Rhynchota
,, 8. Diptera (Flies)
,, 9. Aphaniptera
,, 10. Anoplura
,, 11. Mallophaga
,, 12. Thysanoura

CLASS MYRIAPODA (Centipedes)
Order 1. Chilopoda
,, 2. Chilognatha

CLASS ARACHNIDA (Spiders, etc.)
Order 1. Pulmonaria
,, 2. Trachearia

CLASS CRUSTACEA (Crabs, Lobsters, etc.)
Order 1. Decapoda } Podophthalma
,, 2. Stomapoda }
,, 3. Amphipoda } Edriophthalma
,, 4. Læmodipoda }
,, 5. Isopoda }
,, 6. Xyphosura } Entomostraca
,, 7. Phyllopoda }
,, 8. Cladocera }
,, 9. Ostracoda }
,, 10. Copepoda }
,, 11. Siphonostoma }
,, 12. Lernæida }
,, 13. Cirrhopoda
,, 14. Araneiformia

CLASS ANNELIDA
Order 1. Dorsibranchiata
,, 2. Tubicola
,, 3. Terricola
,, 4. Suctoria

CLASS ENTOZOA

CLASS ROTIFERA

CLASS CEPHALOPODA (Cuttle-fish)
Order 1. Dibranchiata
„ 2. Tetrabranchiata

CLASS GASTROPODA (Snails, etc.)
Order 1. Pulmonifera
„ 2. Prosobranchiata
„ 3. Opisthobranchiata
„ 4. Heteropoda

CLASS PTEROPODA

CLASS LAMELLIBRANCHIATE CONCHIFERA
Order 1. Asiphonata
„ 2. Siphonata

CLASS PALLIOBRANCHIATA

CLASS TUNICATA
Order 1. Ascidiæ
„ 2. Salpæ

CLASS POLYZOA

CLASS ECHINODERMATA (Star-fish)
Order 1. Echinida
„ 2. Stellerida
„ 3. Crinoidea
„ 4. Holothurida

CLASS OF POLYPIFERA
Order 1. Helianthoida
„ 2. Asteroida

CLASS OF HYDROZOA
Order 1. Hydroida
„ 2. Discophora
„ 3. Ctenophora
„ 4. Siphonophora

PROTOZOA
Class 1. Infusoria
„ 2. Rhizopoda
„ 3. Porifera

Later classifications are more compressed; but the main classes are much the same, though nearly every naturalist has introduced various modifications to suit his own views. A comparatively modern classification, such as that set forth below,[1] represents the present-day ideas on the subject.

Modern Zoological Classification

SUB-KINGDOM I. VERTEBRATA
CLASS 1. MAMMALS
Ord. 1. Primates (Apes)
„ 2. Chiroptera (Bats)
„ 3. Insectivora (Insect-eaters)
„ 4. Carnivora (Flesh-eaters)
„ 5. Rodentia (Gnawers)
„ 6. Ungulata (Hoofed animals)
„ 7. Sirenia (Manatees)
„ 8. Cetacea (Whales)
„ 9. Edentata (Sloths)
Ord. 10. Effodientia (Pangolins)
„ 11. Marsupialia (Pouched mammals)
„ 12. Monotremata(Egg-laying mammals)

CLASS 2. AVES (BIRDS)
Two Sub-classes and 34 Orders

CLASS 3. REPTILES
Ord. 1. Crocodilia
„ 2. Chelonia (Tortoises)
„ 3. Squamata(Lizards, Snakes)
„ 4. Rhynchocephalia(Quatera)

[1] Lydekker's *Concise Natural History* (1897).

CLASS 4. AMPHIBIANS
Ord. 1. Ecaudata (Frogs)
,, 2. Caudata (Newts)
,, 3. Apoda (Cæcilians)
CLASS 5. FISHES
Four Sub-classes
CLASS 6. CYCLOSTOMA (Lampreys)
CLASS 7. PROTOCHORDA (Lancelets)
CLASS 8. HEMICHORDA

SUB-KINGDOM II. ARTHROPODA
CLASS 1. CRUSTACEA (Crabs, Lobsters)
CLASS 2. ARACHNIDA (Spiders)
CLASS 3. MYRIOPODA (Centipedes)
CLASS 4. PROTRACHEATA
CLASS 5. INSECTS
Ord. 1. Coleoptera (Beetles)
,, 2. Orthoptera (Grasshoppers)
,, 3. Neuroptera (Dragonflies)
,, 4. Hymenoptera (Bees, Wasps, Ants)
,, 5. Lepidoptera (Butterflies, Moths)
,, 6. Hemiptera (Bugs, etc.)
,, 7. Diptera (Flies)

SUB-KINGDOM III. MOLLUSCA (Oysters, Snails, Cuttlefish)
CLASS 1. AMPHINEURA
CLASS 2. PELECYPODA (Bivalves)
CLASS 3. SCAPHOPODA
CLASS 4. GASTROPODA (Snails, Limpets)
CLASS 5. CEPHALOPODA (Nautilus, Cuttlefish)

SUB-KINGDOM IV. BRACHIOPODA (Lampshells)

SUB-KINGDOM V. ECHINODERMA (Starfish)

SUB-KINGDOM VI. BRYOZOA (Polyzoa: Seamats)

SUB-KINGDOM VII. VERMES (Worms)

SUB-KINGDOM VIII. CŒLENTERA (Sponges, Corals)

SUB-KINGDOM IX. PROTOZOA (Animalculæ: Lowest forms)

19. We will conclude this part of the work by a selection of three botanical classifications. The first, which represents the older systems of Bentham and Hooker, is that published in the later editions of Henfrey's *Botany*, and is not arranged on the evolutionary principle.

Botanical Classification

DIVISION I. PHANEROGAMIA
Sub-division 1. Angiospermia
Class 1. Dicotyledones
,, 2. Monocotyledones
Sub-division 2. Gymnospermia
DIVISION II. CRYPTOGAMIA
Sub-division 1. Cormophyta
Class 1. Vascularia
,, 2. Muscineæ
,, 3. Charales
Sub-division 2. Thallophyta
Class 1. Algæ
,, 2. Fungi
,, 3. Protophyta

The subject of botanical classification in its historical aspect is treated at some length in Sachs' *History of Botany (1530–1860)* (Oxford: 1890). The methods of Linnæus and Jussieu have little practical value for modern book-classifiers, and the reference to Sachs will probably meet every want. A comparatively recent classification is the following,[1] which is arranged on the evolutionary plan:

Modern Botanical Classification, 1

GROUP 1. THALLOPHYTA
- Class 1. Algæ
- ,, 2. Fungi

GROUP 2. MUSCINEÆ
- Class 3. Hepaticæ
- ,, 4. Musci

GROUP 3. PTERIDOPHYTA
- Class 5. Filicinæ
- Class 6. Equisetaceæ
- ,, 7. Lycopodinæ

GROUP 4. PHANEROGAMIA

A. Gymnospermæ
- Class 8. Gymnospermæ

B. Angiospermæ
- Class 9. Monocotyledones
- ,, 10. Dicotyledones

Another variation of the evolutionary arrangement is the following[2]:

Modern Botanical Classification, 2

GROUP 1. THALLOPHYTES
1. Myxomycetes (Naked protoplasm)
2. Diatomacæ (Diatoms)
3. Schizophyta
4. Algæ (Seaweeds)
5. Fungi (Mushrooms)

GROUP 2. MUSCINEÆ (Mosses)
1. Hepaticæ (Liverworts)
2. Musci (Mosses)

GROUP 3. VASCULAR CRYPTOGAMS
1. Filicineæ (Ferns)
2. Equisetineæ
3. Sphenophylleæ
4. Lycopodineæ

GROUP 4. PHANEROGAMS (Flowering plants)
1. Gymnospermæ (Naked seeds)
2. Angiospermæ (Enclosed seeds)

The classification of Chemistry, Mineralogy, Crystallography, Geology, etc., is not of a nature to be helpful save in special libraries, and all that is needful to gain an inkling of its principle may be gleaned from any text-book.

[1] From Prantl's *Botany*.

[2] From Goebel's *Outlines of Classification and Special Morphology of Plants* (1887).

20. The student of classification who wishes to pursue the subject in general in more detail will find much of interest in the authorities we have already mentioned, while additional matter will be found in such works as *Remarks on Classification of Human Knowledge*, by Sir J. W. Lubbock (London: 1834); *Essay on the Classification and Geographical Distribution of the Mammalia*, by Sir Richard Owen; *History of the Inductive Sciences*, by Whewell; *Lectures on the Elements of Comparative Anatomy, and on the Classification of Animals*, by T. H. Huxley (1864); *The Classification of the Sciences*, by Herbert Spencer; *Zoological Classification*, by F. P. Pascoe (1880); *Synopsis of the Classification of the Animal World*, by H. A. Nicholson (1882); Fothergill, *Zoological Types and Classification* (1891); and scientific text-books in general.

CHAPTER III

SCHEMES FOR THE CLASSIFICATION OF BOOKS AND CATALOGUES

21. HITHERTO we have been considering the arrangement of books on library shelves and the methodical classification of knowledge as it affects the classification of books. This chapter is concerned with the many important methods which have been devised within the past four hundred years for arranging libraries and their catalogues in groups of related subjects without making special provision for marking their order and place on the shelves. Although many of the later systems provide minute numerical or alphabetic signs to denote the order and place of topics in the scheme, such signs are not necessarily to be considered as furnishing a system of shelf-marking. What may be termed combination systems of classification and shelf-marking are described in Chapter IV.

22. Some of the earliest attempts at book classification were made for commercial purposes, and it may be assumed that convenience was the object aimed at in grouping together in printed lists the titles of books on kindred topics. Soon this plan was found necessary in libraries, either alone or in combination with lists of authors. It is quite evident that no motive of pedantry moved the old booksellers to attempt classified lists, as has been assumed by certain writers, but the practical idea of displaying their wares in a manner to attract customers. It is vain therefore for those who denounce exact classification and classified catalogues to attribute to

the users of methodical arrangements the foolish desire to be considered cleverer than their neighbours. Practical convenience was the sole cause, and any one who cares to investigate the matter will find that the methods of the early bookseller are used at the present time, not only by our humble costermongers (Section 1), but by every class of tradesman who has goods for sale. As regards booksellers, Edwards has pointed out[1] that the character of their classification seems to have been determined by their stock-in-trade, and he cites the divisions used by the elder **Aldus**, the printer, in a catalogue of Greek books, 1498, which was divided into five groups, thus:

1. Grammatica
2. Poetica
3. Logica
4. Philosophia
5. Sacra Scriptura

This is one of the earliest examples of rudimentary classification in a catalogue of printed books. Another early scheme for book classification was that devised by Conrad **Gesner** in 1548, which has been regarded as "the first bibliographical system." This scheme has twenty-one main classes grouped together in a kind of genealogical sequence under the head of "Philosophia, comprehendit Artes et Scientias." The arrangement of classes is as follows:

1. Grammatica et Philologica
2. Dialectica
3. Rhetorica
4. Poetica
5. Arithmetica
6. Geometria, Optica, etc.
7. Musica
8. Astronomia
9. Astrologia
10. De Divinatione et Magia
11. Geographia
12. Historia
13. De diversibus artibus illiteratis, mechanicis, etc.
14. De Naturali Philosophia
15. Metaphysica et Theologia
16. De Morali Philosophia
17. De Philosophia Economica
18. De re Politica id et Civili ac Militari
19. De Jurisprudentia
20. De re Medica
21. De Theologia Christiana

The earliest English bookseller's catalogue was that of Andrew

[1] *Memoirs of Libraries*, Vol. II., p. 761.

Maunsell, issued at London in 1597, under the title *Catalogue of English printed bookes . . . gathered into alphabet, and such method as it is.* It was published in two parts, the first comprising Divinity and the second Science.

23. Fifty-three years after this appeared the earliest systematic work on modern libraries, in which are given a few slight indications of what was then looked for in catalogues. To John **Durie**, a Scots author, we owe a little work entitled *The Reformed Librarie-keeper* (London: 1650), containing, among other interesting matter, the following notes on classification and cataloguing as then understood: "All the books and manuscripts, according to the titles whereunto they belong, are to bee ranked in an order most easie and obvious to bee found, which I think is that of Sciences and languages, when first all the books are divided into their *subjectum materiam* whereof they treat." This indicates preference for classification in the catalogue; and he further advocates a shelf notation as follows: "In the printed catalogue a reference is to bee made to the place where the books are to be found in their shelves or repository." As a further guide he recommends "a catalogue of their Titles made alphabetically in reference to the autor's name with a note of distinction to shew the science to which they are to be referred." This is clearly a class catalogue with an author index, such as continued to be used long after Durie's time. His views were enforced nearly fifty years later by another Scot, the Rev. James **Kirkwood**, in an anonymous tract entitled *An Overture for founding and maintaining of bibliothecks in every paroch throughout the kingdom* [Scotland] (1699). He states that under his plan every parish library is to have "exact alphabetical catalogues" giving particulars of "the place where, and the time when, they [books] are printed." As regards classification, he writes: "It will be convenient that all the Bibliothecks in the kingdom observe the same method of ranking and placing their books, which method may be to rank the books according to their name and number in the general catalogue." The method of printing catalogues in broad classified sections continued for

long to be the practice in libraries and among booksellers, though as great diversity of system existed then as now; some catalogues being partly indexed as Durie recommends, but most of them being simply set out in large sections. Another early example of a trade catalogue, somewhat akin to Maunsell's, was that issued by William **London** in 1658, entitled *A Catalogue of the most vendible books in England orderly digested, under the heads of divinity, history, physic, law, etc.* (London). These two lists were the forerunners of the more elaborate inventories of Low and Sonnenschein, as well as the less-known *London Catalogue of Books . . . from the year 1700, properly classed under the general branches of literature, and alphabetically disposed under each head* (1773).

24. Having now briefly described the methods of book classification in use in this country during the seventeenth and eighteenth centuries, we can turn to the methods of other countries. In France a method was introduced in the latter part of the seventeenth century which proved of immense value and influence, being used at the present time in various modified forms. The groundwork of this system, described indifferently as the "Paris" or "French" system, also as "De Bure's" or "Brunet's" system, was laid by Jean Garnier, a Jesuit, or Ismael Bouillaud, the compiler of the catalogue of De Thou's Library. This method was altered successively by Gabriel Martin, De Bure, Brunet, Barbier, and Achard, and forms the basis of many modern systems. It is not necessary to display the various plans in detail, the differences not being very important after the changes made by De Bure and Brunet. We will, however, just quote the main classes of

Garnier's Scheme

Class 1. Theology	Class 5. History
„ 2. Philosophy	„ 6. Jurisprudence
„ 3. Medicine	„ 7. Heterodoxy
„ 4. Literature	

What may be termed the settled French scheme as used by Brunet and others was as follows:

French Scheme

CLASS I. THEOLOGY
1. Holy Scriptures
2. Sacred Philology
3. Liturgies
4. Councils
5. Fathers
6. Collective Works of Theologians
7. Singular and Fanatical Sects and Opinions
8. Judaism
9. Oriental Religions
10. Deism, etc.

CLASS II. JURISPRUDENCE
1. General Treatises on Law
2. Natural and International Law
3. Political Law
4. Civil and Criminal Law
5. Canon and Ecclesiastical Law

CLASS III. SCIENCES AND ARTS
1. Dictionaries and Encyclopædias
2. Philosophical Sciences
3. Physical and Chemical Sciences
4. Natural Sciences
5. Medical Sciences
6. Mathematical Sciences
7. Mnemonics
8. Fine Arts
9. Mechanical Arts and Trades
10. Gymnastics — Recreative Arts and Games

CLASS IV. POLITE LITERATURE
1. Introductory Works
2. Linguistics
3. Rhetoric
4. Poetry
5. Prose Fiction
6. Philology
7. Dialogues, etc.
8. Letters
9. Polygraphy
10. Collective Works—Miscellanies

CLASS V. HISTORY
1. Historical Prolegomena
2. Universal History
3. History of Religions, etc.
4. Ancient History
5. Modern History
6. Historical Paralipomena

An important English modification of this method was that of Thomas Hartwell **Horne**, the bibliographer, whose *Introduction to the Study of Bibliography* (1814) is a well-known work. He published his plan in *Outlines for the Classification of a Library* (London: 1825), and its leading classes and subdivisions were as follows:

Horne's Scheme

CLASS I. THEOLOGY OR RELIGION
1. Introductory Works
2. Natural Religion
3. Revealed Religion
   a. Holy Scriptures
   b. Sacred Philology
   c. Councils and Ecclesiastical Polity
   d. Liturgies
   e. Fathers and Collected Works of Theologians
   f. Scholastic Divinity
   g. Systematic Divinity
   h. Moral and Casuistical Divinity
   i. Catechetical Divinity

I. *k.* Polemical Divinity
l. Pastoral Divinity
m. Hortatory Divinity
n. Mystical and Ascetical Divinity
o. Miscellaneous Treatises
4. History of Religions

CLASS II. JURISPRUDENCE
1. Public Universal Law
2. Ancient Civil and Feudal Law
3. Canon Law
4. British Law
5. Foreign Law

CLASS III. PHILOSOPHY
1. Introductory Works—Encyclopædias, etc.
2. Intellectual Philosophy
3. Moral and Political Philosophy
4. Natural Philosophy
5. Mathematical Philosophy

CLASS IV. ARTS AND TRADES
1. History of Arts
2. Liberal Arts
3. Economical Arts, Trades and Manufactures
4. Gymnastic and Recreative Arts

CLASS V. HISTORY
1. Historical Prolegomena
2. Universal History
3. Particular History
a. Ancient
b. Middle Ages
c. Modern
4. Biographical and Monumental History
5. Historical Extracts and Miscellanies.

CLASS VI. LITERATURE
1. Literary History and Biography
2. Polite Literature
a. Grammar
b. Philology and Criticism
c. Rhetoric and Oratory
d. Poetry
e. Literary Miscellanies.

25. Returning to British systems, reference may be made to the old classification of the **London Institution,** devised by Richard Thomson, E. W. Brayley, and William Maltby, and appearing in the *Catalogue of the Library of the London Institution systematically classed* (London: 1835). The main feature of this method is the synoptical table of classes arranged under such main heads as Theology, Jurisprudence, Philosophy, Mathematics, etc., sub-divided in somewhat inexact sections. The most extraordinary point in connection with this particular scheme is the plan adopted of locating classes by their positions over fireplaces, in recesses or galleries, etc. Presses indicated by busts of Roman emperors or others surmounting them are common; but to locate Theology or Botany over a fireplace seems a very primitive, not to say prosaic, method of shelf arrangement.

26. About this time (1836–38) the systematic classification used in the British Museum was first applied generally to the

collections in that library. It is somewhat important as the system used in the largest British library possessing unusually valuable stores of books on every conceivable subject, and is therefore interesting as an example of the provision requisite for storing the leading sections of literature to be found in complete libraries. The system is described by Dr. Richard Garnett in the *Transactions of the Library Conference, 1877*; and he explains that only principal sub-divisions are given. We have not set out every sub-division given by Dr. Garnett, but only enough to show the details of the scheme. It bears a slight resemblance to the scheme of Horne, Section 24, but in the multiplication of main classes and details of working out differs from most of the larger classifications with which we are acquainted.

British Museum Scheme

I. THEOLOGY
- 1. Bibles, Polyglot
- 2. Hebrew
- 3. Greek
- 4. Latin
- 5. French, Italian, Spanish, etc.
- 6. German
- 7. Dutch and Scandinavian
- 8. English
- 9. Celtic
- 10. Slavonic
- 11. Oriental
- 12. American, Polynesian, etc.
- 13. Bible Concordances
- 14. Bible Commentaries, General
- 15. Pentateuch
- 16. Other Historical Books
- 17. Psalms
- 18. Prophets and Hagiographa
- 19. Unfulfilled Prophecy
- 20. New Testament, General
- 21. Bible Commentaries, Gospels and Acts
- 22. Epistles
- 23–25. Liturgies
- 26–27. Metrical Psalms, Hymns
- 28–80. Prayers, Theology, Sermons
- 81. Mythology
- 82. Scriptures of Non-Christian Religions
- 83. Jewish History
- 84–99. Church History, General and National
- 100–102. Missions
- 103. Religious Fraternities
- 104. Freemasonry
- 105. Biography, General Religious
- 106. Scripture
- 107–109. Saints, Popes, Cardinals
- 110–115. Religious, National
- 116. Juvenile Religious
- 117. Theological Bibliography

II. JURISPRUDENCE
- 1. Papal Bulls

II. 2. Councils
3–6. Canon, Ecclesiastical, and Marriage Law
7. Roman Law
8. Mediæval Jurists
9–28. Law, National, Foreign
29–33. Jurisprudence, Crime, Prisons, Forensic Medicine
34–44. English Law, General and Special
45. Trials
46–48. Law of Ireland, Scotland, Colonies
49–52. Law of United States
53. Law of South America
54–55. Maritime and Military Law
56. Treaties and Conventions
57. International Law

III. Natural History and Medicine
1. Natural History, General
2. Botany
3. Horticulture
4. Agriculture
5. Mineralogy
6. Geology
7. Palæontology
8. Zoology, General
9. Mammalia
10. Ornithology
11. Herpetology
12. Ichthyology
13. Domestic Animals (with Veterinary Surgery)
14. Entomology
15. Conchology, etc.
16. Dictionaries of Medicine
17–18. Medical Principles and Theses
19. Domestic Medicine
20. Physiology
21. Phrenology, Animal Magnetism, etc.
22. Anatomy
23–24. Pathology, Therapeutics
25. Mineral Waters
26. Surgery
27. Materia Medica
28–36. Diseases, Hospitals, etc.

IV. Archæology and Arts
1–2. Archæology
3. Costumes
4. Numismatics
5. Fine Art, General
6–7. Architecture
8. Painting and Engraving
9. Sculpture
10. Music
11. Field Sports
12. Games of Chance
13. Games of Skill
14. Useful Arts
15. Domestic Economy
16–17. Exhibitions, etc.

V. Philosophy
1–24. Politics (National) Political Economy, etc.
25–29. Commerce, Charities, etc.
30–33. Education, Schools, etc.
34. Moral Philosophy
35–37. Marriage, Women, Temperance, etc.
38–39. Metaphysical Philosophy
40. Logic
41. History of Philosophy
42–46. Mathematics: Arithmetic, Geometry, etc.
47. Astronomy
48–50. Astrology, Occult Science, Spiritualism
51. Physics
52. Optics
53. Meteorology
54. Electricity
55. Mechanics
56. Hydrostatics, Hydraulics

V. 57. Nautical Sciences
58. Arms and Military Engines
59. Military Art
60. Chemistry
61. Spectral Analysis
62. Photography

VI. HISTORY
1. Chronology
2. Universal History
3. History, Asia
4. Asia, British India
5. Africa
6–8. Europe, General
9. Byzantine and Ottoman
10–29. Europe, National
30–35. England
36–43. America, U.S., Australia
44–45. Heraldry, Genealogy
46. Pageants, Processions, etc.

VII. GEOGRAPHY
1. Cosmography
2. Ethnology
3. Circumnavigations
4. Voyages in two or more parts of the World
5–39. Travels, by Countries
40. Hydrography

VIII. BIOGRAPHY
1–19. Collective and National
20–22. Epistles

IX. BELLES LETTRES
1. Classical Polygraphy
2–8. Homer, Greek and Latin Poets and Orators
9–16. Poetry, Italian
17–18. Spanish, Portuguese
19–21. French, Provençal
22–24. German
25–26. Dutch, Scandinavian
27–28. Slavonic, Celtic, etc.
29–41. English
42. Poetry, American
43–58. Drama, National
59. Rhetoric
60–61. Literary Criticism and History
62. Typography
63. Bibliography
64. Catalogues
65–67. Compendiums, Encyclopædias, etc.
68–77. Collected Works of Authors, by Nationalities
78. Speeches
79. Fables
80–81. Proverbs, Anecdotes
82. Satire and Facetiæ
83. Essays and Sketches
84. Fiction, Collected
85. Folk-Lore, Fairy Tales
86. Early Romances
87. Fiction, Italian
88. Spanish and Portuguese
89. French
90. German
91. Dutch and Scandinavian
92. Slavonic and Hungarian
93. English, Collected
94. Waverley Novels
95. English, Translations
96. English, Early
97. Republications
98. English, General
99. Minor
100. American
101. Tales for Children

X. PHILOLOGY
1. General Philology
2. Languages, Semitic
3. Other Asiatic and African
4. American and Polynesian
5. Chinese and Japanese
6. Greek

X. 7. Languages, Latin
8–10. Italian, Spanish, French
11–13. German, Dutch, Scandinavian, Slavonic
14. Languages, Celtic
15. English
16. Phonography
17. Books for the Blind

27. The Germans are responsible for a number of schemes dating from that of Leibnitz (1700) to recent times; but most of them are more adapted for the libraries of universities or learned societies than the general public libraries we are familiar with in Britain and the United States. It will be sufficient to name the methods of Ersch (1793), Preusker (1830), and the minute scheme of Thienemann (1847), the main heads of which are given in Edwards' *Memoirs*. Room may be found for some of the chief divisions of Dr. Schleiermacher's method, which is worked out with much elaboration in his *Bibliographisches System der gesammten Wissenschaftskunde*, and condensed by Edwards.

Schleiermacher's Scheme

CLASS I. Encyclopædias, Literary History, and Bibliography
CLASS II. Polygraphy
CLASS III. Linguistics and Philology
CLASS IV. Greek and Latin Literature
CLASS V. Polite Literature in Modern and Oriental Tongues
CLASS VI. Fine Arts
CLASS VII. Historical Sciences
CLASS VIII. Mathematical and Physical Sciences
CLASS IX. Natural History
CLASS X. Medicine and Pathology
CLASS XI. Industrial and Economical Sciences
CLASS XII. Philosophy
CLASS XIII. Theology
CLASS XIV. Jurisprudence and Politics

28. From about 1850 onwards the systems of classification become more practical, more minute, and more in accordance with modern ideas. The advances made in science and the great increase in the publication of technological literature gradually altered the arrangement of main classes and subdivisions. The passing of the Public Libraries Acts in Britain and the immense strides made in library work in the United States tended to direct more attention to the study of classification, and it is from this period that most of the best systems date.

The following classification is very useful and suggestive; and as the catalogue from which it is taken is well indexed, it forms one of the most complete answers to those who in earlier times doubted the possibility of producing a satisfactory classed catalogue or dismissed the whole type as "logical absurdities." *The Classified Catalogue of the Library of the Royal Institution of Great Britain*, compiled by Benjamin Vincent (London: 1857), has the undernoted main classes and sub-divisions:

Royal Institution Scheme (1857)

CLASS I. THEOLOGY
- I. Holy Scriptures (19 sections)
- II. Helps to Study (10)
- III. Apocryphal Writings
- IV. Liturgies (4)
- V. Church Discipline and Government
- VI. Theological Controversy (5)
- VII. Miscellaneous Theology (4)
- VIII. Ecclesiastical History

CLASS II. GOVERNMENT, POLITICS, JURISPRUDENCE
- I. Government and Politics (11)
- II. Jurisprudence (12)
- III. Commerce (4)

CLASS III. SCIENCES AND ARTS
- I. Moral and Intellectual Philosophy (8)
- II. Medical Sciences (13)
- III. Natural History (23 under 5 heads)
- IV. Natural and Experimental Philosophy (25 under 11 heads)
- V. Chemistry (3)
- VI. Mathematical Sciences (9)
- VII. Astronomy (7)
- VIII. Architecture
- IX. Civil Engineering (6)
- X. Navigation and Naval Architecture (3)
- XI. Military Art (2)
- XII. Mechanic Arts (2)
- XIII. Fine Arts (5)
- XIV. Music
- XV. Sports and Games
- XVI. Domestic Economy
- XVII. Miscellaneous

CLASS IV. LITERATURE
- I. History and Study of Literature (7)
- II. Bibliography (7)
- III. Language (3)
- IV. Classical Literature (2)
- V. Miscellanea Latina
- VI. Anglo-Saxon
- VII. English Literature (4)
- VIII. French Literature
- IX. Italian Literature
- X. Spanish and Portuguese Literature
- XI. German Literature
- XII. Oriental Literature (5)

CLASS V. GEOGRAPHY
- I. Ancient and Modern Geography (4)
- II. Voyages and Travels (37)

CLASS VI. HISTORY, MYTHOLOGY, ARCHÆOLOGY, BIOGRAPHY
- I. Study of History
- II. Mythology
- III. Archæology (3)

IV. Chronology and Genealogy
V. Biography (3)
VI. History (29)

CLASS VII. BRITISH GEOGRAPHY, ANTIQUITIES, HISTORY, AND BIOGRAPHY
I. British Geography and Antiquities (13)
II. History of England (12)
III. Wales
IV. Scotland
V. Ireland
VI. British Biography, Letters, Peerages (4)
VII. Government (4)
VIII. Honours and Dignities (3)
IX. Historical Tracts

The classification of Nicholas Trübner, designed for a Bibliographical Catalogue of American Literature, is worthy of mention here as a practical method of arranging books on a special subject.

Trübner's Scheme (1859)

1. Bibliography
2. Collections
3. Theology
4. Jurisprudence
5. Medicine
6. Natural History
7. Chemistry and Pharmacy
8. Natural Philosophy
9. Mathematics, Astronomy
10. Philosophy
11. Education
12. Modern Language
13. Philology
14. American Antiquities
15. History
16. Geography
17. Useful Arts
18. Military Science
19. Naval Science
20. Rural and Domestic Economy
21. Politics
22. Commerce
23. Belles Lettres
24. Fine Arts
25. Music
26. Freemasonry
27. Mormonism
28. Spiritualism
29. Guide Books
30. Maps
31. Periodicals

29. We come now to the most important of the English classifications which for years has formed the basis of a large number of the broad schemes described in Chapter I. This is the very complete method of Edward Edwards, outlined in his *Memoirs of Libraries*, Vol. II., p. 815, and stated by himself to be designed for "the special characteristics and requirements" of public libraries, then only recently established by the Acts of 1850 and 1855. The Manchester Public Library, organised by Edwards, is classified according to this system, and other libraries have adopted some of the main classes and

sub-divisions. The weakest part of the system is, in our opinion, the cumbrous notation or method of briefly indicating the classes. Thus "Ecclesiastical History of England Generally" requires a mark like this, "III –7 § f i," so that such symbols are out of the question for shelf arrangement. The general excellence of this classification marks it as one well adapted for careful study by librarians; and as the method of indicating divisions and sub-divisions seems to act as a stumbling-block to many, we have ventured to simplify them, and present a condensed table of the entire method. We have accordingly applied letters instead of figures to the main classes, retained the original divisional numbers, and noted all further sub-divisions by a second sequence of numbers following a dash. Thus "Ecclesiastical History of England Generally" becomes simply C 7 –5.

Edwards' Scheme (1859)

CLASS A. THEOLOGY

1. Holy Scriptures
   - –1. Complete Texts
   - –2. Detached Books of O. and N. Tests.
   - –3. Harmonies of O. and N. Tests.
   - –4. Apocryphal Scriptures
   - –5. Bible Histories
2. Sacred Philology
   - –1. Introductions to Bible
   - –2. Commentaries and Paraphrases
   - –3. Concordances and Dictionaries
   - –4. Biblical Antiquities
   - –5. Geography and Natural History of Bible
   - –6. Connexions of Sacred and Profane History
3. Collective Works of Theologians
4. Dogmatic and Polemic Theology
5. Catechetical Theology
6. Pastoral and Hortatory Theology
7. Mystical Theology
8. Liturgies, Rites, and Ceremonies
9. Judaism
10. Natural Theology

CLASS B. PHILOSOPHY

1. General and Collective Works
2. Ethics
3. Metaphysics

CLASS C. HISTORY

1. Study of History
2. Universal History and Biography [including General Geography and Collections of Voyages]
3. Ancient History and Biography
4. History of the Middle Ages
5. General Ecclesiastical History
6. History of Modern Europe, General [including Travel]
7. History of Great Britain and Ireland, General
   - –1. England, General
   - –2. Before Conquest
   - –3. Individual Reign

C. 7. -4. United Kingdom, Ecclesiastical History, General
-5. England, Ecclesiastical History, General
-6. Before Reformation
-7. Reformation
-8. Post-Reformation
-9. History of Dissenters, General
-10. History of Dissenters, Denominational
-11. England, Parliamentary History
-12. United Kingdom, Naval History (also England)
-13. Military History (also England)
-14. Monetary and Medallic History (also England)
-15. England, Topographical History, General
-16. Architectural and Sepulchral Antiquities
-17. County Topography
-18. Travels
-19. United Kingdom, Collective Biography (also England)
-20. Particular Biography (also England)
-21. Peerages, Baronetages, Political Indexes (also England)
-22. State Papers and Records (also England)
-23. Scotland, General History
-24. Ecclesiastical History
-25. Military History
-26. Topographical History
-27. Travels
-28. Biography
-29. State Papers and Records
-30. Ireland, General History
-31. Ecclesiastical History
7. -32. Ireland, Military History
-33. Topographical History
-34. Travels
-35. Biography
-36. State Papers and Records
-37. Wales, History
-38. British Colonies, History, General
-39. American Collective History
-40. West India ,, ,,
-41. Australian ,, ,,
-42. History of Particular Colonies
-43. British India, History
8. Europe, Modern History, General
-1. Belgium and Holland
-2. Denmark, Sweden, Norway
-3. France
-4. Germany
-5. Greece
-6. Hungary
-7. Italy
-8. Poland
-9. Russia
-10. Switzerland
-11. Turkey
-12. Other Parts of Europe
9. America, History, General
-1. United States [since Independence]
-2. Mexico
-3. Hayti
-4. Central and Southern America
10. Africa and Asia, Modern History

CLASS D. POLITICS AND COMMERCE

1. Politics and Government, General
2. National Constitutions

D. 3. Monarchy, General
-1. Crown of England, Succession and Prerogatives
4. Parliamentary and Representative Assemblies, General
-1. House of Lords
-2. House of Commons, Constitution, etc., General
-3. Reform
-4. Bribery at Elections
-5. Ballot and Electoral Reform
-6. Privileges
-7. Internal Economy and Business
-8. Reports and Papers
-9. Foreign Countries, Representative Assemblies
5. Civil Government, General
-1. Civil Service of United Kingdom
6. Law, General
7. Laws, Collective, U.K. and England
-1. Laws, Commentaries, England
-2. Codification, England
-3. Reform ,,
-4. Courts of Law ,,
-5. Scotland
-6. Ireland
-7. Wales
-8. Colonial
-9. United States
-10. Foreign Countries
-11. International Law
8. Criminal Law (4 sub-divisions)
9. Political Economy: Commerce, Pauperism, Population, etc. (33 sub-divisions)
10. Church Establishments
11. Public Education (3 sub-divisions)
12. Army and Navy, Organisation, etc.
13. Foreign Policy, Ambassadors and Consuls
14. Political Satires, Liberty of the Press

CLASS E. SCIENCES AND ARTS
1. General: Dictionaries, Society Transactions
2. Physical Sciences, General
-1. Physics
-2. Mechanics
-3. Acoustics
-4. Optics
-5. Pneumatics, Electricity, Meteorology, etc.
-6. Physical Astronomy
-7. Chemistry, General
-8. Inorganic
-9. Organic
-10. Analytical
-11. Technical
-12. Society Transactions, Periodicals
-13. Mineralogy and Crystallography
-14. Geology, General
-15. Particular
-16. Societies and Periodicals
-17. Biology, General
-18. Comparative Anatomy and Physiology
-19. Human Anatomy and Physiology
-20. Zoology, General
-21. Particular
-22. Local
-23. Societies and Periodicals
-24. Botany, General
-25. Physiological
-26. Local
-27. Societies and Periodicals
-28. Palæontology

E. 3. Mathematical Sciences, General
-1. Arithmetic; -2. Algebra; -3. Geometry, Conic Sections, Mensuration; -4. Trigonometry; -5. Calculus
4. Mechanical Arts, General
-1. Civil Engineering; -2. Steam Engine; -3. Roads, Railways, Bridges; -4. Docks, Harbours, Canals, etc.; -5. Field Work; -6. Building; -7. Mining and Metallurgy, Machinery, etc.; -8. Textile Fabrics; -9. Mathematical Instruments, Watch and Clock-making; -10. Type-founding, Printing, Lithography, etc.; -11. Pottery, Ceramics, Glass; -12. Other Arts and Trades
5. Military and Naval Arts (8 subdivisions)
6. Arts of Design, General
-1. Painting (3 sub-divisions); -2. Sculpture; -3. Engraving; -4. Architecture; -5. Landscape Gardening; -6. Photography
7. Art of Writing, General
-1. Palæography; -2. Shorthand; -3. Secret Writing
8. Musical and Histrionic Arts, General
-1. Music, General; -2. Music, Theory and Composition; -3. Music, Practical Treatises, Instruments, Voice; -4. Music, History; -5. Histrionic Art, Histories of the Stage
9. Medical Arts, General
-1. Medicine, ParticularBranches; -2. Surgery and Surgical Anatomy; -3. Materia Medica and Pharmacy; -4. Dietetics
10. Domestic and Recreative Arts

CLASS F. LITERATURE AND POLYGRAPHY.

1. History of Literature, General
2. Linguistics, or Philology, General
-1. Particular Languages; -2. Dictionaries, Lexicons, etc.
3. Poetry and Fiction, General Collections and History
-1. National Collections; -2. Classic Greek Poets; -3. Classic Latin Poets; -4. British Poets; -5. Modern Foreign Poets; -6. Early Romantic Fiction; -7. Comic, Pastoral, and Heroic Romance; -8. Dramatic Poetry, Collections of Plays; -9. Collective Works of Individual Authors; -10. Separate Plays; -11. History of Dramatic Poetry; -12. Modern Tales, Novels and Romances
4. Oratory: Speeches and Treatises on Oratory
5. Essays, Proverbs, Literary Miscellanies
6. Epistolography, or Collections of Letters
7. Bibliography and Literary History of Particular Countries
8. Polygraphy [collections of works in 2 or more classes]
-1. British; -2. Foreign; -3. Encyclopædias; -4. Reviews, Magazines, etc.

30. A modern English system of great practical value is

that used by Mr. W. Swan Sonnenschein in his important bibliographies of general literature entitled *The Best Books.* The classification of this invaluable library tool has the great merit of being based upon the actual printed books of contemporary and recent literature, as well as the older literature represented by reprints. It thus exhibits not only a complete scheme of headings or classes under which books can be grouped, but by giving examples of actual titles under every main class and sub-division presents one of the most useful text-books which can be studied by the young librarian. Its valuable index adds materially to its usefulness and completeness. We add the main classes and principal divisions, with an indication of the number of sub-divisions.

Sonnenschein's Scheme (1887)

CLASS A. THEOLOGY

1. General (1–3)
2. Natural Theology (4–8)
3. Ethnic Theology, Oriental (9–15)
4. Bible (16–47)
5. Ecclesiastical History, General (48–59)
6. National (60–75)
7. Denominational (76–101)
8. Ecclesiastical Polity (102–112)
9. Practical Theology (113–118)
10. Systematic Theology (119–134)

CLASS B. MYTHOLOGY

1. Comparative (1–2)
2. Special Departments (3–10)
3. Mythology and Folk-Lore, National (11–39)

CLASS C. PHILOSOPHY

1. General
2. History (2–4)
3. Ancient Philosophers by Schools (5–15)
4. Modern Philosophers (16–67)
5. Special Departments [68. Logic; 69. Metaphysics; 70. Ethics; 71. Psychology; 72. Æsthetics; 73. Philosophy of History; 74. Political and Social Philosophy; 75. Philosophy of Law]

CLASS D. SOCIETY

1. Law, General
2. Statutes, etc. (2–3)
3. General (4)
4. History (5–7)
5. Special Departments (8–100)
6. Courts, Procedure (101–109)
7. Roman and Oriental (110–112)

8–9. International (113)

10. Political Economy (114–124)
11. Social Economy (125–133)
12. Politics (134–147)
13. Commerce (148–154)
14. Education (155–172)

CLASS E. GEOGRAPHY

1. General (1–8)
2. Historical Geography (9–10)
3. Europe (11–29)
4. Asia Minor (30)
5. Asia (31–40)
6. Africa (41–51)

7. America (52–61)
8. Australasia (62–67)
9. Polar Regions (68–69)

CLASS F. HISTORY

1. General (1–4)
2. Primitive Society (5)
3. Ancient History (6–12)
4. Middle Ages (13–14)
5. Europe (15–60)
6. Asia (61–64)
7. South Africa (65)
8. America (66–75)
9. Gypsies (76)

CLASS G. ARCHÆOLOGY AND HISTORICAL COLLATERALS

1. Antiquities, General and Local (1–11)
2. Classical (12–21)
3. Genealogy, Heraldry, Names (22–24)
4. Miscellaneous [25. Costume; 26. Autographs; 27. Stamps; 28. Flags; 29. Signboards; 29*. Pipes; 30. Lives of Antiquaries]

CLASS H. SCIENCE

1. General (1–4)
2. Mathematics (5–9)
3. Physics (10–16)
4. Chemistry (17–20) [5. and 6. accidentally omitted]
7. Astronomy (21–24)
8. Physiography (25–30)
9. Geology (31–41)
10. Biology (42–47)
11. Botany (48–69)
12. Zoology (70–106)

CLASS H*. MEDICINE

1. General (1–3)
2. Human Anatomy and Physiology (4–9)
3. Medicine (10–13)
4. Endemic Disease (14)
5. Special Diseases (15–25)
6. Surgery (26–33)
7. Local Surgery (34–44)
8. Obstetrics (45–47)
9. Diseases of Children (48)
10. Pathology (49–50)
11. Materia Medica and Therapeutics (51–53)
12. Medical Jurisprudence and Toxicology (54)
13. Hygiene (55–57)
14. Hospitals, Nursing (58–59)
15. Domestic Medicine (60)
16. Homœopathy (61–62)

CLASS I. ARTS AND TRADES

1. Collective (1–2)
2. Engineering (3–12)
3. Electrical (13)
4. Military (14–18)
5. Naval (19–23)
6. Agriculture (24–51)
7. Industries and Trades (52–81)
8. Fine Arts (82–115)
9. Architecture (116–122)
10. Music (123–133)
11. Drama (134–136)
11*. Other Public Performers (136*, **)
12. Domestic Arts (137–145)
13. Sports and Recreations (146–172)

CLASS K. LITERATURE AND PHILOLOGY

1. Reference Works (1–2)
2. Bibliography (3–10)
3. Printing, History (11–15)
3*. Libraries (16–16*)
4. Literature, National: History, Biography, Criticism (17–42)
5. Prose Fiction (43–58)
6. Facetiæ (58*–61)

7. Poetry, National (62–78)
8. Dramatists (79–82)
9. Essayists (83–85)
10. Letter Writers (86)
10*. Oratory (86*)
11. Maxims, Epigrams (87)
12. Anecdotes (88)
13. Collections and Miscellanies (89–91)

PHILOLOGY AND ANCIENT LITERATURE

14. General Philology (92–100)
15. Hamitic Philology and Literature (101–104)
16. Semitic Philology and Literature (105–118)
17. Aryan Philology and Literature (119–139)
18. Non-Aryan and Non-Semitic (140–157)
19. Malay and Polynesian (158–160)
20. African (161)
21. American (162–164)
22. Hyperborean (165)
23. Unclassed Philology (166)
24. Greek and Latin, General (167–174)
25. Greek Philology and Literature (175–198)
26. Latin Philology and Literature (199–224)
27. Teutonic Philology (225–255)
28. Romance Philology and Literature (256–278)
29. Celtic Philology and Literature (279–283)
30. Slavonic Philology and Literature (284–285)
31. Artificial Universal Language (286)

31. A modern German system which has had some vogue is that prepared for the University of Halle by Otto Hartwig.[1] The following main classes and divisions will give some idea of its character:

Hartwig's Scheme (*c.* 1888)

CLASS A. BIBLIOGRAPHY AND GENERAL WORKS
- Aa. Library Science
- Ab. Bibliography
- Ac. Printing and Publishing
- Ad. Introductions to Sciences and History of Sciences
- Ae. History and Publications of Learned Societies
- Af. General Works (General Periodicals, Encyclopædias, etc.)

CLASS B. LINGUISTICS, GENERAL, AND ORIENTAL LANGUAGES
- Ba–Bh

CLASS C. CLASSICAL PHILOLOGY
- Ca–Cl

CLASS D. MODERN PHILOLOGY
- Da–Dn

CLASS E. FINE ARTS
- Ea. Plastic Arts in General
- Eb. Ancient Art
- Ec. Mediæval and Modern Art
- Ed. Music
- Ee. Acting

CLASS F. PHILOSOPHY
- Fa–Fc

CLASS G. PEDAGOGY
- Ga. Pedagogy, Public Education

[1] Taken from Graesel-Laude's *Manuel de Bibliothéconomie* (1897).

Gb. History and Statistics of Universities
Gc. School Books, Works for the Young

CLASS H. HISTORY OF CIVILISATION
Ha–Hb

CLASS I. THEOLOGY
Ia–Ib. General
Ic–Ie. Exegetical Theology
If–Ig. Dogmatic Theology
Ih–Ik. Historical Theology
Il–Im. Practical Theology

CLASS K. JURISPRUDENCE
Ka–Ku

CLASS L. POLITICAL SCIENCES
La–Lh

CLASS M. SCIENCES AUXILIARY TO HISTORY
Ma. General (Diplomatics, Palæography, Genealogy, Heraldry)
Mb. Chronology, Numismatics

CLASS N. HISTORY
Na. General and Universal History
Nb. History, Ancient
Nc. Mediæval
Nd. Modern
Ne. Germany
Nf. Prussia
Ng. Prussian Provinces
Nh. North German
Ni. South German
Nk. Austria-Hungary
Nl. Switzerland
Nm. Holland and Belgium
Nn. History, Great Britain
No. France
Np. Spain and Portugal
Nq. Italy
Nr. Balkan Peninsula
Ns. Russia
Nt. Scandinavia
Nu. Other European Countries
Nv. Biography

CLASS O. GEOGRAPHY
Oa. General
Ob. Voyages and Itineraries
Oc. Political and Statistical Geography

CLASS P. NATURAL AND MATHEMATICAL SCIENCES, GENERAL
Pa. Natural Sciences, General
Pb. Mathematics, General
Pc. Pure Mathematics
Pd. Astronomy
Pe. Applied Mathematics

CLASS Q. PHYSICS AND METEOROLOGY
Qa–Qc

CLASS R. CHEMISTRY
Ra–Rb

CLASS S. NATURAL SCIENCES
Sa. Mineralogy, Geology, Palæontology
Sb. Botany
Sc. Zoology

CLASS T. AGRICULTURE, ETC.
Ta–Tb

CLASS U. MEDICINE
Ua–Uo

32. Another scheme, of Italian origin, based on that of Artwig and certain American methods, is that of Bonazzi,

first published as *Schema di catalogo sistematico per le Biblioteche Parma* (1890). Its main feature is the uniform sub-division of each main class, shown in detail below.

Bonazzi's Scheme (1890)

CLASS A. GENERAL WORKS
CLASS B. ETHNIC RELIGIONS, MYTHOLOGY, ETC.
CLASS C. CHRISTIAN RELIGION
CLASS D. JURISPRUDENCE
- A. Bibliography
- B. Periodicals
- C. Proceedings
- E. Introductory Works
- F. Text-books
- G. General Treatises
- H. Collections
- Y. Polygraphy
- Z. History and Biography

CLASS E. SOCIOLOGY
CLASS F. PHILOLOGY
CLASS G. LITERATURE
CLASS H. PHILOSOPHY
CLASS I. PHYSICAL AND MATHEMATICAL SCIENCES
CLASS K. CHEMISTRY
CLASS L. NATURAL SCIENCE
CLASS M. MEDICINE
CLASS N. SURGERY
CLASS O. PHARMACY
CLASS P. VETERINARY SCIENCE
CLASS Q. AGRICULTURE
CLASS R. INDUSTRY AND MANUFACTURES
CLASS S. FINE ARTS
- A. Bibliography
- B. Periodicals
- C. Proceedings
- E. Introductory Works
- F. Text-books
- G. General Treatises
- H. Collections
- Y. Polygraphy
- Z. History and Biography

CLASS T. MUSIC
CLASS U. RECREATIVE ARTS
CLASS V. THEATRE
CLASS W. TRAVEL
CLASS X. ARCHÆOLOGY
CLASS Y. BIOGRAPHY
CLASS Z. HISTORY

Each class is divided like D and S above, and the scheme bears a general resemblance to some American methods possessing "mnemonic" or "local" features.

33. The last scheme which comes into this section is one introduced in 1894 for libraries in which readers have the privilege of direct access to the shelves. In this respect it differs from all the methods hitherto described. It has been adopted in a number of open access libraries in England, and in addition was in use in its main features since 1888 in the Clerkenwell Public Library, London. It is based on older schemes, and is not provided with a shelf notation, being intended solely for arrangement. It is described in a paper

entitled "Classification of Books for Libraries in which Readers are allowed Access to the Shelves," by John H. Quinn and James D. Brown, first read at the Belfast meeting of the Library Association in 1894, and printed in the *Library* for 1895.

Quinn-Brown Scheme (1894)

CLASS A. RELIGION AND PHILOSOPHY

1. Bible (*a.* Texts, *b.* Commentaries, *c.* History, *d.* Aids)
2. Church (*a.* History, *b.* Law, *c.* Liturgy, *d.* Rituals by Sects)
3. Theology (*a.* Natural Theology, *b.* Christianity, *c.* Non-Christian Systems, *d.* Mythology, *e.* Popular Beliefs)
4. Philosophy (*a.* Schools, *b.* Mental Science, *c.* Logic, *d.* Moral Science)

CLASS B. HISTORY, TRAVEL, AND TOPOGRAPHY

a. Universal History and Geography, *b.* Dictionaries, *c.* Chronology, *d.* Archæology (including Numismatics), *e.* Gazetteers, *f.* Atlases, etc.

National History and Topography [by countries, sub-divided as required]—1. Europe, 2. Asia, 3. Africa, 4. America, 5. Australasia, 6. Polar Regions

CLASS C. BIOGRAPHY

Dictionaries and General Collections (*a.* Peerages, *b.* Army, *c.* Clergy, *d.* Law and other lists, *e.* Dignities, *f.* Heraldry, *g.* Genealogy and Family History)

Classes, including Criticism (*a.* Actors, *b.* Artists, *c.* Authors, *d.* Clergy and Religious, *e.* Engineers, *f.* Inventors, *g.* Legal, *h.* Monarchs, *i.* Philosophers, *j.* Philanthropists, *k.* Scientists, *l.* Statesmen, *m.* Travellers, etc.)

CLASS D. SOCIAL SCIENCE

1. Society (*a.* Manners and Customs, *b.* Folk-lore, *c.* Marriage, *d.* Women, *e.* Pauperism, *f.* Crime, *g.* Socialism, etc.)
2. Government and Politics (*a.* Public Documents, *b.* Statutes, *c.* Army, *d.* Navy, *e.* Civil Service, etc.)
3. Law (International, English, Colonial, Foreign, Special—as Patent, Commercial, etc.)
4. Political Economy (Taxation, Free Trade, Capital and Labour, Land, Rent, Statistics)
5. Education
6. Commerce

CLASS E. SCIENCE

1. Biology (Evolution, General)
2. Zoology
3. Botany
4. Geology (Palæontology, Mineralogy and Crystallography)
5. Chemistry
6. Physiography
7. Astronomy
8. Physics
9. Mathematics

CLASS F. FINE AND RECREATIVE ARTS

1. Architecture
2. Painting

3. Sculpture and Carving
4. Decoration
5. Engraving
6. Music
7. Amusements
8. Sports

CLASS G. USEFUL ARTS

1. Engineering (Steam, Naval, Military, Civil, Mining, Railway, Electrical, etc.)
2. Building and Mechanical Arts
3. Manufactures
4. Agriculture and Gardening
5. Sea and Navigation
6. Health and Medicine
7. Household Arts

CLASS H. LANGUAGE AND LITERATURE

1. Philology
2. Literary History
3. Bibliography
4. Libraries

CLASS J. POETRY AND THE DRAMA

1. Poetry (Anthologies, Poets alphabetically)
2. Drama (Stage History, Dramatists alphabetically)

CLASS K. FICTION

1. Collections, Author Alphabet and Anonyma
2. Juvenile

CLASS L. GENERAL WORKS

1. Encyclopædias, Directories
2. Miscellanies (Sketches, Essays, Anecdotes, Proverbs)
3. Collected Works
4. Periodicals not in other Classes

CHAPTER IV

SCHEMES FOR THE CLASSIFICATION OF BOOKS CONJOINED WITH SHELF NOTATIONS

34. THE classification methods just examined are primarily for use in arranging books in catalogues or on shelves without providing a system of serial numbers or marks by which single books can be referred to and found as well as placed. To a certain extent the marking of the systems of Edwards, Sonnenschein, Bonazzi, Hartwig, and Quinn-Brown could be used for finding and charging purposes; but class numbers alone, without some method of indicating individual books, are not sufficient for all purposes. Turning back to Section 29, it will be noticed that in Edwards' scheme C 7 –27 is a general reference to Travels in Scotland. But there may be two hundred separate works in this sub-division, and no means are provided for distinguishing one from another. Of course the books in C 7 –27 might be arranged in an author alphabet; but this would still make the entry of a loaned book cumbrous, as it would be necessary to note the author and brief title thus: "C 7 –27. Garnett's Tour." The accession number alone can be used for purposes of identifying the individual works of a sub-division, as is done with the Quinn-Brown method; but this was not contemplated in any other of the schemes described in Chapter III. This chapter is therefore concerned with the methods, mostly of modern origin, which are combination systems for classifying, shelving, cataloguing, charging, and otherwise identifying, not only main or sub-classes, but single books.

35. The first scheme of this sort is of American origin, as

indeed are the whole of the published combination classifications. It was devised by Dr. William T. Harris, Superintendent of Public Schools, St. Louis, who was also one of the managers of the Public School Library of that city. His system was adopted at this library, and has been also used in other American libraries, particularly that of Peoria, Ill., which published an important modification or rather amplification of the scheme in 1896. Harris's method is sometimes styled the "Inverted Baconian" plan, from its general arrangement in the three main classes "Science," "Art," and "History," which roughly correspond to Bacon's "Philosophy," "Poetry," and "History," tabulated in Section 14. To Harris belongs the credit of having first produced a method adapted to the wants of a modern library. It bears a certain resemblance to the decimal system of Dewey, in its provision of a hundred divisions and general sequence of main divisions. The first draft of this system was printed in the *Journal of Speculative Philosophy* (1870), Vol. IV., p. 114–19, a periodical edited by Harris at St. Louis. It is also briefly described in the official work entitled *Public Libraries in the United States of America* (Washington: 1876). In actual use the main class letters and numbers of Harris's scheme are not required. Indeed he says that the proximate classes are numbered from 1 to 100, so as to have only two figures for most classes, with letters added for sub-classes. This is clearly enough shown in the following table, which is condensed from the Peoria Public Library scheme, it being, as before remarked, more complete than Harris's original plan:

Harris's Scheme (1870)

ORIGINAL FORM

A. SCIENCE. 1. Philosophy, 2. Religion
Social and Political Science. 3. Jurisprudence, 4. Politics, etc.
Natural Sciences and Useful Arts. 7. Mathematics, 11. Useful Arts
B. ART. 12. Fine Arts, 13. Poetry, 14. Pure Fiction, 15. Literary Miscellany
C. HISTORY. 16. Geography and Travel, 17. Civil History, 18. Biography
D. APPENDIX. 19. Appendix—Miscellany

PEORIA FORM

SCIENCE

2. Philosophy in General
3. Philosophies and Philosophers (*a.* Ancient, *d.* Early Christian, *e.* Modern, *s.* Special)
4. Metaphysics (4*a.* Anthropology, 4*b.* Psychology, 4*c.* Logic)
5. Ethics
6. Religion
7. Bible
8. Commentaries
9. Theology, Doctrinal, Dogmatics
10. Devotional, Practical
11. Natural Theology
12. Religious and Ecclesiastical History
13. Modern Systems
14. Judaism
15. Mythology and Folk-Lore
16. Oriental and Pagan Religions

SOCIAL AND POLITICAL SCIENCES

18. Jurisprudence
19. Law
20. International Law
21. Ancient, Feudal, and Civil Law
22. Common Law, Canon Law, Equity
23. Statute Law, Reports and Digests
24. Constitutional Law and History
25. Law Treatises (Criminal, Martial, etc.)
26. Political Science
27. Legislative Bodies and Annals
28. Administration
29. Social Science
30. Economics
31. Education
32. Philology
33. Grammars and Text-books
34. Dictionaries

NATURAL SCIENCES AND USEFUL ARTS

35. Natural Science (*a.* Scientific Periodicals)
36. Mathematics in General (*a.* Weights and Measures)
37. Arithmetic
38. Algebra
39. Geometry, Trigonometry, Calculus
40. Engineering (*a.* Railroad, Canal, etc., *b.* Bridges and Roofs, *d.* Military and Naval, etc.)
41. Mechanical (Steam Engines, Machinery, etc.)
42. Physics (General and Special)
43. Electricity
44. Chemistry
45. Astronomy
46. Natural History (*a.* Biology, *b.* Evolution, *c.* Microscopy, *d.* Collectors' Manuals, *e.* Out-of-doors Books)
47. Physical Geography (*a.* Land, *b.* Water, *c.* Atmosphere)
48. Geology
49. Botany
50. Zoology
51. Ethnology
52. Archæology, Antiquities
53. Medicine
54. Anatomy, Physiology
55. Materia Medica, Pharmacy
56. Pathology, Diseases, Treatment
57. Hygiene (*a.* Food, *b.* Clothing, *c.* Children, *d.* Physical Culture, *e.* Public Health)
58. Amusements, Recreations
59. Useful Arts and Trades (*a.* Exhibitions, *b.* Patents)
60. Military Arts (*e.* Naval Science)

61. Mechanic Arts and Trades (Building, Manufactures, Chemical Technology)
62. Commercial Arts, Business (*a.* Book-keeping, *b.* Writing, *c.* Printing, etc.)
63. Productive Arts (*a.* Mining, *b.* Agriculture, *c.* Cookery, *d.* Housekeeping, *f.* Furniture, *g.* Needlework)

ART

64. Fine Arts, General
65. Fine Arts, History
  a. Architecture (5 sub-divisions)
  b. Sculpture (3 sub-divisions)
  c. Drawing (4 sub-divisions)
    Painting (10 sub-divisions)
  d. Engraving, Lithography, Etching
    1. Photography
  e. Art Works, Collections of Pictures
  f. Minor Arts, Decorative and Industrial
  g. Music (11 sub-divisions)
66. Poetry and the Drama, History and Criticism (*a–w.* National)
67. English Poetry
68. Foreign Poetry and Drama
69. Prose Fiction
70. Juvenile Literature
71. Literary Miscellany
72. Fables, Anecdotes, etc.
73. Rhetoric, Elocution
74. Orations and Speeches
75. Essays
76. Collected Literary Works
77. Literary History and Criticism
78. Bibliography (including Library Economy)

HISTORY

80. Geography and Travel, General
81. Geography (*a.* Ancient, *b.* Modern)
82. Voyages
83. America, Travels (11 sub-divisions)
84. Europe, Travels (11 sub-divisions)
85. Asia, Travels (6 sub-divisions)
86. Africa, Travels (5 sub-divisions)
87. Travels in Several Quarters (5 sub-divisions)
88. Philosophy of History, civilisation
89. Historical Collections
90. Ancient History
91. History of United States
92. America at large
93. British
94. Modern Europe
95. Asia
96. Historical Miscellany (*a.* Crusades, *b.* Battles, *c.* Coins, *d.* Costume, *e.* Customs, *f.* Secret Societies)
97. Biography (*a.* Collective, *b.* Individual, *c.* Genealogy and Heraldry, *d.* Names)
99. Cyclopedias and Collections
100. Periodicals, Newspapers, Journalism

36. Following closely upon the Harris classification is another American scheme, dating from about 1871, in which an attempt is made to combine a numerical sub-classification with sizes. The method is described in the *Library Journal* (1878), Vol. III. There are twenty-five classes, each designated by the letters from A to Z, excluding J. Each of the twenty-five

classes is divided into nine sub-classes by adding 1 to 9, and these sub-classes are further sub-divided by adding one of the twenty-five letters. A further element is introduced by a series of letters to denote sizes, D = duodecimo, O = octavo, Q = quarto, and F = folio. Thus a book may have a number like "A8mo." This system was invented by Mr. Jacob Schwartz, of the Apprentices' Library, New York; and in 1879 he issued an amplification of the same, which is described in the *Library Journal* (1879), Vol. IV. It is styled the "Mnemonic System of Classification," and its main outlines are these:

Schwartz's Scheme (1871-79)

A. ARTS, FINE AND USEFUL
1. Agriculture
2. Carpentry
3. Fine Arts, General
4. Games
5. Household Science
6. Music
7. Painting
8. Sculpture
9. Useful Arts

B. BIOGRAPHY
C. CUSTOMS
D. DRAMA AND POETRY
E. EUROPE, HISTORY AND TRAVEL
F. FICTION, JUVENILE
G. GOVERNMENT AND SOCIAL SCIENCE
H. HISTORY, GENERAL
J. JURISPRUDENCE
K. LANGUAGE
L. LITERATURE
M. MENTAL AND MORAL SCIENCE
N. NATURAL HISTORY
O. ORIENTAL HISTORY AND TRAVEL
P. PERIODICALS
R. REFERENCE AND RARE BOOKS
S. SCIENCE
T. THEOLOGY
U. UNITED STATES HISTORY AND TRAVEL
V. VOYAGES AND TRAVEL
W. WORKS, COLLECTED

Every class is sub-divided as at A, in a little alphabetical sequence, wherein an arrangement is followed which makes 1 always begin with A or B, 2 with C or D, 3 with E or F, 4 with G or H, and so on. No doubt the correspondence between the class letter and the initial of the class name is an assistance to the memory of assistants; but it is doubtful if this compensates for the separation of the Geographical and Historical classes. In the *Library Journal* (1882), Vol. VII.,

Mr. Schwartz published a "New Classification and Notation," in which an attempt is made to combine the numerical, the alphabetical, and the classified forms. This is accompanied by an interesting tabulated plan of the scheme. Mr. Schwartz was one of the parties to the clever and amusing controversy on classification schemes which for several years, from about 1879, raged in the *Library Journal* among such experts as Dewey, Cutter, Perkins, and Schwartz. This was one of the most instructive discussions which ever took place upon an abstruse library topic, and it undoubtedly did much to educate and fix the opinion of American librarians wholly in favour of systematic classification.

37. We have arrived now at the most generally adopted and influential of all the schemes of systematic library classification, that devised by Mr. Melvil Dewey (of the State Library, Albany, New York) about 1873, and first applied to the library of Amherst College, Mass. It was originally published anonymously in 1876 as *A Classification and Subject Index for cataloguing and arranging the Books and Pamphlets of a Library* (Amherst, Mass.), and in the same year a brief account of the method appeared in *Public Libraries in the United States of America*. In 1885 and 1888 extensive improvements were introduced, especially a Relative Index, and in April, 1895, an *Abridged Decimal Classification and Relative Index* was published as Vol. IV., Nos. 13, 14, of *Library Notes*. No system of classification has been so widely adopted or so generally appreciated, and no other system has done so much valuable missionary work in the cause of systematic classification. It is so well known, that a very brief description and a few extracts will serve to make its general outlines clear. In the first edition acknowledgment is made of indebtedness to the *Nuovo Sistema di Catalogo Bibliografico Generale*, of Natale Battezzati, of Milan, and to the systems of Messrs. Harris and Schwartz. As the older forms have been modified or discarded, it is unnecessary to further examine the earlier editions. At present the method consists of ten main classes, arranged as follows:

Dewey's Scheme[1] (1873-76)

0. General Works	5. Natural Science
1. Philosophy	6. Useful Arts
2. Religion	7. Fine Arts
3. Sociology	8. Literature
4. Philology	9. History

Each of these classes is divided into ten divisions, and each of these into ten sections. In all cases the 0 indicates general works on each class, division, or section. Sub-divisions of sections are indicated by another series of consecutive numbers coming after a period or point. Thus 553·7 means Class 5 Natural Science, Division 5 Geology, Section 3 Economic Geology, Sub-section ·7 Mineral Waters. The scheme possesses various mnemonic features, a certain number, for example, always standing for a certain country or topic. In such an elaborate and well-indexed method, these extra aids do not appear to us to possess much value. "The books are arranged on the shelves in simple numerical order, all class numbers being decimal. Since each subject has a definite number, all books on any subject must stand together." The order of the divisions is as follows; and it will be seen that, when shelved, the books in a library will be arranged in a simple numerical sequence, yet perfectly classed in an accurate scheme of related main classes and subordinate subjects:

Dewey Divisions

000 General Works	**100** Philosophy
010 Bibliography	110 Metaphysics
020 Library Economy	120 Special Metaphysical Topics
030 General Cyclopedias	130 Mind and Body
040 General Collections	140 Philosophical Systems
050 General Periodicals	150 Mental Faculties, Psychology
060 General Societies	160 Logic
070 Newspapers	170 Ethics
080 Special Libraries, Polygraphy	180 Ancient Philosophers
090 Book Rarities	190 Modern Philosophers

[1] *Tables and Index of the Decimal Classification and Relative Index for arranging and cataloguing Libraries, Clippings, Notes, etc.* 3rd Edition. (Boston: 1888.) A fifth edition has since appeared.

200 RELIGION
210 Natural Theology
220 Bible
230 Doctrinal Theology, Dogmatics
240 Devotional and Practical
250 Homiletic, Pastoral, Parochial
260 Church, Institutions, Work
270 Religious History
280 Christian Churches and Sects
290 Non-Christian Religions

300 SOCIOLOGY
310 Statistics
320 Political Science
330 Political Economy
340 Law
350 Administration
360 Associations and Institutions
370 Education
380 Commerce and Communication
390 Customs, Costumes, Folk-Lore

400 PHILOLOGY
410 Comparative
420 English
430 German
440 French
450 Italian
460 Spanish
470 Latin
480 Greek
490 Minor Languages

500 NATURAL SCIENCE
510 Mathematics
520 Astronomy
530 Physics
540 Chemistry
550 Geology
560 Paleontology
570 Biology
580 Botany
590 Zoology

600 USEFUL ARTS
610 Medicine
620 Engineering
630 Agriculture
640 Domestic Economy
650 Communication and Commerce
660 Chemical Technology
670 Manufactures
680 Mechanic Trades
690 Building

700 FINE ARTS
710 Landscape Gardening
720 Architecture
730 Sculpture
740 Drawing, Design, Decoration
750 Painting
760 Engraving
770 Photography
780 Music
790 Amusements

800 LITERATURE
810 American
820 English
830 German
840 French
850 Italian
860 Spanish
870 Latin
880 Greek
890 Minor Languages

900 HISTORY
910 Geography and Description
920 Biography
930 Ancient History
940 Europe
950 Asia
960 Africa
970 North America
980 South America
990 Oceanica and Polar Regions
} Modern

To show the arrangement of sections we select the division 620 Engineering, which is divided thus:

621 Mechanical
622 Mining
623 Military
624 Bridge and Roof
625 Road and Railroad
626 Canal
627 River and Harbor
628 Sanitary, Water Works
629 Other Branches

The arrangement of 621 is continued in sub-sections as follows:

621·1 Steam Engineering
621·2 Water Engines or Motors
621·3 Electrical Engineering
621·4 Air and Gas Engines and Other Motors
621·5 Air Compressors, Ice Machines
621·6 Blowing and Pumping Engines
621·7 Mills and Manufacturing Works
621·8 Mill Work and Mechanism of Transmission
621·9 Machine Tools

621·1 Steam Engineering is in its turn further divided thus:

621·11 Mechanism of Steam Engine
621·12 Marine Engines
621·13 Locomotive Engines
621·14 Traction Engines
621·15 Portable Engines
621·16 Stationary Engines
621·17
621·18 Steam Generation, Boilers, Furnaces
621·19 Steam Heating

This classification provides places and symbols for every topic, however minute, and there only remains some method of distinguishing individual books. There may be, for instance, twelve books on 621·18, which would all have the same class number. How then to distinguish Courtenay on Boilers from Shock on Boilers? Several ways have been suggested, as in finding and charging it is essential that a reader should be credited only with the single book of a class which he borrows, and not with all the books in the class. One plan is to use the accession number, which might give symbols like this:

621·18– 4689 Courtenay, Boiler-maker's Assistant
621·18–10675 Shock, Boilers

The most generally adopted plan, used greatly in American

libraries, is to apply the "**Cutter Author Marks,**" a system of numbering all the best-known surnames, invented by Charles A. Cutter, late of the Boston Athenæum. The main features of this scheme may be briefly noted here, those who desire further particulars being referred to the tables published by the Library Bureau. "Books on the shelves are kept alphabeted by marking them with the initial of the author's family name, followed by one or more decimal figures assigned according to a table so constructed that the names whose initials are followed by some of the *first* letters of the alphabet have the *first* numbers, and those in which the initials are followed by *later* letters have *later* numbers":

Abbott = Ab2
Acland = Ac6
Cook = C77
Cousin = C83
Crabb = C84
Gardiner = G16
Gerry = G36
Gilman = G42
Shock = Sh8

These initials and surname numbers serve to keep minute class divisions in strict alphabetical order, and can also be used for registering books. Shock on Boilers would be numbered 621·18Sh.8, which would differentiate it from every other book in the same sub-section and from every other book in the library. These, then, are the principal points in the Decimal classification. Of its merits it is unnecessary to speak, as the method has been generally accepted all over America and in many British, Colonial, and Continental libraries. The chief objection we have seen urged against it, apart from such questions as the arrangement and constituent subjects of main classes, has been the uniformity of progression by tens, and the plan of making every class, division, section, or sub-section conform to this system. It may be said, however, and a slight examination will confirm this, that the advantages of the Decimal notation far outnumber the disadvantages of an occasional distortion or needless inflation of a class, division, or section.

38. There have been several modifications of Dewey's Decimal classification introduced at different times; but the

only one we propose to notice is that of Sion College, London, first printed in 1886, and afterwards revised and enlarged as *Order of the Classification of Sion College Library, London* (1889). This was the work of the Rev. W. H. Milman, librarian of the college, assisted by Mr. J. P. Edmond, now librarian to the Earl of Crawford at Haigh Hall, Wigan. In it Dewey's notation has been abandoned in favour of the old system of class letters and separate numerical progressions under each class. The order of classes has also been changed, and other variations introduced, with the object of adapting the scheme to the needs of an essentially theological library. It will be enough to briefly indicate the main classes and give a detailed specimen of the divisions and sub-divisions:

Sion College Scheme (1886–89)

CLASS A. Theology (including Ecclesiastical History and Canon Law)
,, B. History
,, C. Philosophy
,, D. Social Science
,, E. Natural Science
,, F. Useful Arts
,, G. Fine Arts
,, H. Philology
,, K. Literature
,, L. Bibliography and Literary History

CLASS C. PHILOSOPHY
C 10. General
C 11–12. Ancient Philosophers
C 13–14. Mediæval and Modern Philosophers
C 15. Biographies and Correspondence of Philosophers
C 20. Logic
C 30–33. Metaphysics
C 40–45. Ethics
C 50–51. Applied Morality
C 60. Aberrations from Morality (Suicide, Magic, Witchcraft, etc.)

Detail of C 20:

LOGIC

C 20·0. General
C 20·1. Introductions
C 20·2. Systems
C 20·2*a*. Systems, Greek
C 20·2*b*. Latin
C 20·2*c*. Modern

All through this scheme there are numerous departures from the Dewey tables, and the whole method is well worth careful study for its suggestiveness. The Cutter author marks are used to identify individual books.

39. One of the most scientific and complete modern schemes of classification is the "Expansive" method of Mr. Charles A. Cutter, which has been adopted within recent years in a number of libraries in the United States. Mr. Cutter is well known to librarians the world over as the author of the standard *Rules for a Dictionary Catalogue*, and for his valuable services to library science rendered while he was librarian at the Boston Athenæum. His system of classification was developed many years ago, probably before 1879, but has only been fully worked out in minute detail within the last few years. It was first published, in parts, at Boston, in 1891, as *Expansive Classification*, when the first table was issued. The other six tables have since been printed, and now librarians have an opportunity of examining the details of the scheme. Library assistants will find a summary of the method and its application to cataloguing in the *Catalogue of "A. L. A." Library*, issued by the U.S. Bureau of Education in 1893. Mr. Cutter also described his system at the International Library Conference held at London in July, 1897, and from his paper we select a few points of interest and importance:

"It consists of seven tables of classification of progressive fulness, designed to meet the needs of a library at its successive stages of growth. The first table has few classes and no subdivisions. It is meant for a very small collection of books. The second has more classes and some sub-divisions, but retains all the old classes with their previous marks. This is intended for the small collection, when it has swelled so much that it must be broken up into more parts. Now the books which are put into the new classes must of course have new marks; but those in the old ones remain as they are—their marks need no change. In this way we go on, gradually increasing the number of classes and sub-classes, and yet in each transition from the simpler to the more complex scheme pre-

serving all the old notation; so that there is only the absolutely necessary amount of alteration. . . . Passing through the third, and fourth, fifth, sixth, it comes finally to the seventh, which is full and minute enough for the British Museum, with a capacity of increase that would accommodate the British Museum raised to the tenth power; for there might be an eighth and a ninth and a tenth table if need be. From this adaptation to growth comes the name *expansive*. . . .

"This system is the first in which a series of expanding tables has been actually printed, the first in which the idea was made prominent. Much more characteristic, however, are two features of the notation. The first is not original, the second is. The first is the use of letters for notation; *i.e.* of the twenty-six letters of the alphabet to mark the classes (A being the general classes, Polygraphy; B, Philosophy and Religion; C, the Christian Religion; D, Ecclesiastical History; and so on); and of a second letter for the sub-classes (Ca being Judaism; Cb, the Bible; Cc, Collected Works of the Fathers of the Church; Cd, Later Divines; and so on). This second letter divides each of the twenty-six main classes into twenty-six parts, and then a third letter divides each of these six hundred and seventy-six divisions into twenty-six parts, or over eighteen thousand in all, taking the single-letter, the double-letter, and the triple-letter classes together. This gives of course more classes than a smaller base; and, on the other hand, many fewer characters are needed to express the same closeness of classification. . . .

"The other characteristic of which I spoke, the original one, is this. We use figures to mark countries, and letters for all other subjects; so that it is possible to express the local relations of any subject in a perfectly unmistakable way, the letters never being used to signify countries, and the figures never being used for any other subjects but countries. Thus 45 is England wherever it occurs: *e.g.* F being History, F 45 is the History of England; G being Geography, G 45 is the Geography of England, or Travels in England, and so on. This local notation can be used, not merely with the main classes,

but with every sub-division, no matter how minute, if it is worth dividing by countries, as: KI 45, English Law; HI 45, English Joint-stock Companies; HT 45, English Budget; HV 45, English Tariff; IG 45, the English Poor; IV 45, English Schools; IX 45, English Universities; JT 45, the English Constitution; JV 45, English Politics; JV 45, English Administration. Or, to turn to another country and a different order of ideas: X 39, French Language; Y 39, French Literature; ZY 39, History of French Literature; ZY 39, French Bibliography; WF 39, French Architecture; WP 39, French Painting. Wherever one wishes to separate what relates to France from other works on any subject, one has only to add the two figures 39, and the thing is done."

The scheme has other features which are described in the paper from which our extracts are taken and in the printed system itself. Those who wish to study the method as a whole are referred to Mr. Cutter's published tables. Following is a brief outline of the main classes and examples of their sectional treatment. It should be added that for the identification of individual books, the Cutter author tables are used.

Cutter's Expansive Scheme.

A. GENERAL WORKS
AD. Dictionaries
AE. Encyclopædias
AI. Indexes
AM. Museums
AP. Periodicals
AQ. Quotations
AR. Reference Books
AS. Societies

B. PHILOSOPHY
BG. Metaphysics
BH. Logic
BI. Psychology
BM. Moral Philosophy

BR. RELIGION
BS. Natural Theology
BT. Religions

C. Christianity and Judaism
CA. Judaism
CB. Bible
CC. Christianity
CE. Apologetical Theology
CF. Doctrinal Theology
CK. Ethical Theology
CP. Ecclesiastical Polity
CR. Ritual Theology
CX. Pastoral Theology
D. Ecclesiastical History

E. BIOGRAPHY

F. HISTORY (with Local List)
FF. Antiquities
FN. Numismatics
FS. Chivalry
FV. Heraldry

G. GEOGRAPHY AND TRAVELS (with Local List)

H. SOCIAL SCIENCE
HB. Statistics
HC. Economics, Political Economy
I. Demotics, Sociology
IK. Education
J. Civics, Political Science
K. Legislation
KW. Woman
KX. Societies

L. SCIENCES AND ARTS

LA. SCIENCES (NATURAL)
LB. Mathematics
LH. Physics, Natural Philosophy
LO. Chemistry
LR. Astronomy
M. Natural History
MB. Microscopy
MC. Geology
MD. Mineralogy
MG. Physiography
MQ. Palæontology
MV. Biology
N. Botany
O. Zoology
P. Vertebrates
PW. Anthropology and Ethnology

Q. MEDICINE

R. USEFUL ARTS, TECHNOLOGY
RC. Metric Arts
RCZ. Extractive and Productive Arts
RD. Mining
RF. Metallurgy
RG. Agriculture
RJ. Animaliculture
RQ. Chemical Technology
RT. Electric Arts
RY. Domestic Economy

CONSTRUCTIVE ARTS:
S. Engineering
SG. Building
SJ. Sanitary Engineering
SL. Hydraulic Engineering
ST. Arts of Transportation
T. Fabricative Arts
U. Art of War
UN. Nautical Arts
V. Athletic and Recreative Arts

FINE ARTS
VV. Music
W. Art, Fine Arts
WD. Plastic Arts
WE. Landscape Gardening
WF. Architecture
WJ. Sculpture
WL. Arts of Design
WM. Drawing
WP. Painting
WQ. Engraving
WR. Photography
WS. Decorative Arts

ARTS OF COMMUNICATION BY LANGUAGE
X. English Language
XH. Language in General
XX. Oratory
Y. English and American Literature
YD. Drama
YF. Fiction
YJ. Juvenile Literature
YP. Poetry
YH. Literature in General
Z. Book Arts
ZN. Private Libraries
ZP. Public Libraries
ZT. Bibliography
ZY. Literary History

The method of sub-division is illustrated by the class N. Botany and SG. Building:

N. Botany	SG. Building
Na. Botanical Gardens, Herbaria	SGb. Building Laws
Nb. Phytology, Theoretical Botany	SH. Carpentry
Nc. Phytography, Descriptive Botany	SHh. Stairs
Nd. Cryptogams	SI. Painting and Glazing
Nr. Phanerogams	SIv. Varnishing and Gilding
Nw. Flowers, Fruit, and Colored Leaves	SIw. Papering
Nx. Sylvæ	SIx. Bell-hanging
Ny. Insectivorous and Parasitic Plants	
Nz. Economic and Medical Botany	

When further sub-division is necessary, it is accomplished by means of the ordinary numerals—N 1, N 2, N 3, Nd 1, Nd 2, Nd 3, etc.; while the arrangement of each minute sub-division, whatever it may be, is by author alphabet indicated as before stated by the Cutter author marks. The long period during which this system has been building will account in a great measure for its comparative neglect, and for the general ignorance of its main features among British librarians. But it is certainly one of the systems most deserving of study.

40. Another careful and practical American scheme is that of Mr. Fred. B. Perkins, late librarian of the San Francisco Public Library. It was published in a final form as *A Rational Classification of Literature for shelving and cataloguing Books in a Library, with Alphabetical Index* (San Francisco: 1882). The idea had long been maturing in Mr. Perkins' mind, and a variation of the 1882 method was previously issued in which a progressive series of numbers ran through the whole scheme. This was withdrawn in favour of the revised system of 1882, in which each main class got an independent series of numbers. The Perkins' system is a library classification pure and simple, in which each topic has a distinct mark, and there is no attempt made at mnemonic or other features. The following are its main classes and chapters or divisions:

Perkins' Rational Scheme (1882)

CLASS A. RELIGION

Chap. I. Bible, Biblical Study
,, II. History of Religion
,, III. Systematic Theology
,, IV. Christian Polity
,, V. Devotional
,, VI. Practical
,, VII. Collective Works

CLASS B. PHILOSOPHY

Chap. I. Mental Philosophy: History and Systems
,, II. Mental Philosophy: Departments
,, III. Mind and Body
,, IV. Moral Philosophy

CLASS C. SOCIETY

Chap. I. Government and Law
,, II. Public Administration
,, III. Social Organisation
,, IV. Political Economy
,, V. Education: Methods and Departments
,, VI. Education: Institution and Reports
,, VII. Business

CLASS D. HISTORY

Chap. I. General Geography and Travels
,, II. Universal History
,, III. Historical Collaterals
,, IV. Ancient History
,, V. Mediæval History
,, VI. Modern and European History
,, VII. Asia
,, VIII. Africa
,, IX. South Seas, Australasia, Single Islands
,, X. America, except United States
,, XI. United States

CLASS E. BIOGRAPHY

Chap. I. Collective: Generally and by Nations
,, II. By Classes
,, III. Genealogy and Names

CLASS F. SCIENCE

Chap. I. General Treatises
,, II. Mathematics
,, III. Natural Philosophy
,, IV. Astronomy
,, V. Cosmology
,, VI. Geology
,, VII. Chemistry
,, VIII. General Natural History and Zoology
,, IX. Botany
,, X. General Medicine
,, XI. Hygiene
,, XII. Medical Practice
,, XIII. Surgical Practice

CLASS G. ARTS

Chap. I. General Treatises
,, II. Engineering
,, III. Architecture, Building
,, IV. Military Arts
,, V. Naval Arts
,, VI. Mechanic Arts and Trades
,, VII. Agriculture
,, VIII. Domestic Arts
,, IX. Fine Arts
,, X. Music
,, XI. Recreation

CLASS H. LITERATURE

Chap. I. History of Literature
,, II. Philology
,, III. Linguistics
,, IV. Critical Science
,, V. Poetry

Chap. VI. Drama
,, VII. Fiction
,, VIII. Oratory
,, IX. Collections
Chap. X. Periodicals
,, XI. Encyclopædias
,, XII. Bibliography
,, XIII. Libraries

Each class is numbered throughout in one sequence, and in actual arrangement the chapter numbers are ignored. Thus a book on Algebra would not be marked F II 8, but simply F 8. The arrangement under classes will be illustrated by a few extracts from Class F:

I. GENERAL TREATISES
F 1. Encyclopædias and Dictionaries
,, 2. Periodicals and Transactions
,, 3. Histories, General

II. MATHEMATICS
F 4. Periodicals and Transactions
,, 5. Histories
,, 6. General Treatises
,, 7. Arithmetic
,, 8. Algebra
,, 9. Geometry
,, 10. Conic Sections
F 11. Trigonometry
,, 12. Calculus
,, 13. Quaternions
,, 14. Probabilities
,, 15. Logarithms, Tables
,, 16–25. *Blank*

XIII. SURGICAL PRACTICE
F 861. Surgery Generally
,, 862. Military Surgery
,, 863. Obstetrics, Maternity
,, 864. Dentistry
,, 865. Anæsthetics

The method recommended for marking individual books in each section is to number them consecutively in order of accession. Thus, in F 8, a progression like this might result:

F 8·1. Todhunter, Algebra
F 8·2. Jones, Algebra
F 8·3. Anderson, Algebra
F 8·4. Smith, Algebra

But of course accession numbers could be used, or the Cutter author marks.

41. The method of Mr. Lloyd P. Smith was set forth in a book named *On the Classification of Books: a Paper read before the American Library Association, May, 1882* (Boston: 1882). It has an alphabetical index of topics, but so far as we know has not been adopted to any extent even in America. There are only six main classes, and the method is based on the old Paris or French scheme.

Smith's Scheme (1882)

Class A. Theology	Class O. Belles Lettres
,, E. Jurisprudence	,, U. History
,, I. Science and Arts	,, Y. Bibliography

Sub-classes are indicated by letters a, b, c, d, etc.; divisions by figures 1, 2, 3, 4, etc.; and sub-divisions by symbols +, △, □, IV, V, VI, etc. The following is part of Class A:

A. RELIGION

a. Toleration

b. Natural Religion

c. Holy Scriptures

1. Bibles

6. Parts of New Testament

o. Ecclesiastical History

1. Oriental Churches

2. Latin Churches

+ Jansenists

△ Gallican Church

□ Spain

IV Roman Catholic Church in U.S. and Canada

The notation is not particularly clear, and A o 2 □ seems rather a forbidding symbol to denote the Inquisition in Spain, for example; while if a Cutter author mark, or even accession number, is added, one might get marks like this: A o 2 □, B 98, or A o 2 □, 3649. This rather unfortunate notation does not detract from the merit of the classification as a whole, which is rather high.

42. The last of the published American schemes is that of Mr. W. I. Fletcher, librarian of Amherst College, which was first issued in his little work on *Public Libraries in America*, "Columbian Knowledge Series," No. 11 (Boston, 1894; also London, Low); and afterwards separately "reprinted, with alterations, additions, and an index," as *Library Classification* (Boston: 1894). The first draft of this scheme was published in the *Library Journal* (1889). It is stated by the compiler to have been drafted "to offer a way of escape for those who shrink from the intricacies and difficulties of the elaborate systems, and to substitute for painstaking analytical classification a simple arrangement, which it is believed is better adapted to be practically useful in a library, while doing away with most of the work involved in carrying out one of these ·nes." Mr. Fletcher uses eleven main classes, excluding

Fiction and Juvenile, which seem to be considered as separate divisions. The arrangement of the scheme is as follows:

Fletcher's Scheme

Fiction (no class number)
Juvenile Books (use J in place of a class number)
1–13. English and American Literature; Universal Literature
15–75. History
81–82. Biography
85–120. Voyages and Travels. Geography
125–172. Sciences
179–240. Useful Arts
245–277. Fine Arts
279–350. Political and Social
352–416. Philosophy and Religion
421–456. Language and Literature (English and American excepted)
461–468. Reference Books and Special Classes

The blanks between the classes are intended for additional divisions. In arranging books by this method an author-alphabetical sequence in each division is recommended, without author marks or additional symbols. If it is desired to insert a new division between any two existing divisions, the first number is to be taken and differentiated by means of a letter, thus: 114, 114ª, 115. Individual books are to be designated by means of separate book numbers added to the class numbers. Roscoe's *Chemistry* might therefore simply be marked 146·30. To show the progression of divisions in each class, we subjoin the whole of the class Sciences:

125. History and Philosophy of the Sciences
126. Scientific Societies and Academies. Periodicals
127. Essays and Miscellanies
128. Evolution and Cosmology
129. Natural History (works combining Zoology, Botany, etc.)
130. Biology and Embryology
131. Comparative Anatomy and Physiology
132. Zoology
133. Lowest Forms of Animal Life
134. Mollusca, Insects
135. Zoology, Fishes
136. Reptiles
137. Birds
138. Mammalia
139. Man
140. Botany: General
141. Cryptogamia
142. Of Countries and Localities
143. Geology: General
144. Of Countries and Localities
145. Mineralogy and Crystallography
146. Chemistry: General
147. Inorganic
148. Organic
149. Analysis. Text-books

150. Physics
151. Heat
152. Light. Optics
153. Electricity
154. Telegraph and Telephone. Phonograph
155. Electric Lighting
156. Electro-dynamics
157. Sound
158. Hydraulics
159. Mechanics
160. Physical Geography
161. Meteorology
162. Astronomy: General
163. Descriptive
164. Practical
165. Almanacs (not Statistical)
166. Mathematical Sciences: General
167. Arithmetic. Book-keeping
168. Algebra
169. Geometry
170. Higher Mathematics
171. Geodesy and Surveying
172. Navigation

43. Other schemes have been proposed and carried out in the United States, many of them possessing points of interest and value, but it is not necessary to describe them here. The method of the Mercantile Library of Philadelphia by John Edmands was described in a separate pamphlet—*New System of Classification and Scheme for numbering Books applied to the Mercantile Library of Philadelphia* (Philadelphia: 1885); and other methods or variations of methods have been described in both the *Library Journal* (American) and *Library Chronicle* and *Library* (English).

CHAPTER V

CLASSIFIED LIBRARIES AND CATALOGUES

44. We have now described most of the important schemes of classification which have been introduced down to recent times, and may add a few remarks on the application of systematic classification to libraries and catalogues. It matters little what scheme a librarian adopts for his books, provided it is complete in itself and is suitable to the general character of his library. He must decide beforehand whether or not he is going to use a combined scheme for classification, shelf-marking, and charging, or simply going to use it for classification and shelving, plus accession numbers for charging and other purposes. It is important that this point be determined at the outset, as everything depends upon what he intends the system to accomplish. As libraries differ so much in their condition and composition, it is obvious that no single system in its integrity is capable of being successfully applied all round. The classification which suits a general public library of 20,000 or 50,000 volumes will not serve so satisfactorily for a Zoological Library of equal size, because its comparatively broad divisions of Biological Science would be inconvenient in a specialised collection containing a multitude of minute sub-divisions. So in turn would this minuteness of sub-division be even more necessary in an Entomological Library, and still more so in a collection of books and specimens of the Lepidoptera.

45. Having decided on the lines which his classification is to follow, the librarian must see that his scheme is provided with an **alphabetical index**, giving references, not only to actual names or words used in the system, but to synonyms as

well, and all relative words or terms. The necessity for this is apparent, and most American systems have been provided with indexes, that to Dewey's method being particularly elaborate and useful. Without an index the librarian is very apt to make mistakes with any system, in classifying books on topics which might be consistently placed in two or more main classes. Thus, Photography might rank as a department of either Optics or Chemistry and be put in Science, or with equal reason be considered as belonging to the same section as Engraving in Fine Art; while those who deny its claim to be considered a Fine Art would have no hesitation in relegating it to the main class Useful Arts. Librarians often change their minds as regards the class of particular books, especially when they pass through their hands at long intervals. A book on some obscure topic may seem correctly placed in Philosophy when first encountered, while next time a similar work turns up it may be just as confidently placed in Social Science. Hence the necessity for an alphabetical reference index to the scheme of classification and for religiously sticking to a first choice of main class, unless some overpowering reason appears to make a change desirable. There is no hard-and-fast rule for the librarian who classifies without reference to a detailed system, because some subjects are so eclectic that almost any main class will afford them an asylum. Therefore a library classified by memory or the whim of the moment is liable to show some queer instances of human inconsistency and to have its topics distributed impartially all over the place. It is manifest that the mere adoption of a systematic classification is not all that is necessary. To use it intelligently and successfully a librarian must deal with each book of a doubtful kind according to its merits, and bear in mind above all the *purpose*, as far as this can be discovered, for which it has been issued. Jevons in his *Principles of Science* declares that "it is a very difficult matter to classify the sciences, so complicated are the relations between them. But with books the complication is vastly greater, since the same book may treat of different sciences, or it may discuss a problem involving many branches of know-

ledge." Quite so; but every rational system of classification assumes the existence of general or encyclopædic books on all subjects, and provides for the difficulty accordingly, while it must be remembered that the vast majority of books are *particular* or *limited* in scope and not *general* at all. Jevons goes on to illustrate his argument by stating that an account of the Steam Engine may be antiquarian, scientific, economical, or biographical, and so present difficulties as regards its assignment to a definite class. But surely, on the other hand, the book, whatever its style or treatment of subject matter, is on the steam engine and nothing else; and as the whole object of exact classification is to collect together books on specific subjects, there can only be *one* place for books on the steam engine, from whatever point of view they are written. In another part of his work Jevons states that "there is nothing really absurd except that which proves contrary to logic and experience." As experience has proved the absolute value of exact classification, we may assume that excess of logic and lack of experience are jointly accountable for Jevons' attitude towards book classification. Nevertheless, the point which we have raised as to difficulties in the way of assigning places for certain kinds of books, even in detailed systems, is one well worth careful consideration, as it is the one on which everything hinges in any sort of classification, broad or close. Let us take, for example, an inscribed stone to illustrate further the latitude which classification allows in regard to the possible choice of appropriate headings for subjects. Which of the following characteristics are we to accept as the most important in determining the place in a classification?—

1. The Language of the Inscription
2. The Subject of the Inscription
3. The Form of the Letters
4. The Locality in which the Stone is placed
5. The Substance of the Stone itself
6. The History or Traditions of the Stone
7. The Purpose for which the Stone was erected [*i.e.* Landmark or Monument]
8. The Design of the Stone

There is here presented a great diversity of possible allocations for this single subject, which shows that care and intelligence are necessary to the satisfactory use of systematic classification. The example also enforces our remark that *purpose* must be taken largely into account in classification. In most doubtful cases, if we determine the object or reason for the existence of a book or subject, we have reached the solution of the difficulty. In the case of an inscribed stone, not of the "Aiken Drum" or "Bil Stumps" variety,[1] we may assume that it must have been erected as a record of either an event or a person. The choice is thus narrowed down to History or Biography, and common sense counsels the rejection of all qualities which are merely those of form or material. In classifying books therefore we have to pay chief regard to subject and purpose, leaving out of account entirely such features as form, appearance, or style of treatment. A history of England philosophically written has no more right to be placed in Philosophy beside Aristotle, Hume, and Descartes, than a book entitled *Picture Logic* has to be classed as Fine Arts.

46. The main divisions of classification schemes are liable to much change; the sub-divisions are also liable; but specific subjects may be regarded as beyond change in relation to one another, though various circumstances may combine to make their transference to other sub-divisions or main classes desirable. However that may be, the fact remains that it is of the utmost importance in close classification to have books on specific subjects all together, and not distributed among several main classes or their sub-divisions. It is, after all, a matter of minor consequence in which main class any definite subject is put, provided always *all* the works on that subject are kept together and in juxtaposition to other books on related topics. No one is likely to put books on Organic Chemistry among Prose Fiction, or do anything of a similar outrageous character. There is no room in a properly formulated scheme for vagaries of this sort, nor is there much likelihood of any inaccuracies happening, unless in the case of obscure subjects, or those

[1] Scott's *Antiquary*, Dickens' *Pickwick Papers*.

which are so very debateable that it does not really matter where they are put. Such a subject is Numismatics, which has appeared in nearly every possible main class. But if all the single works on Coins and Medals are put together in History, or Social Science (Currency), or Fine Arts, or Useful Arts, does it affect the classification in the slightest degree? Not at all, when it is properly indexed; but certainly, if the index we have urged as indispensable is not provided. It was the lack of proper alphabetical indexes in classified catalogues and schemes which caused De Morgan, Jevons, and other writers of authority to denounce subject classification and classed catalogues as delusions and snares. The misconceptions of the past and the necessities of the present point therefore to a full alphabetical index as an indispensable adjunct to every classification scheme or systematically classified catalogue. In cases where the scheme does not possess a printed index we advise the compilation of a card or slip index for library use, giving simply subject words and class numbers:

Algæ = A 216

Additions in alphabetical order can be made to this at any time.

47. The question of alphabetical *versus* classified catalogues has been debated for years with more energy and spirit than any other subject connected with librarianship. Not only professional men, but outsiders of all sorts, have laid down the law on the matter, till the special literature of catalogue compilation has grown to large dimensions. Among this accumulation of varied opinion one fact emerges with conspicuous clearness. The advocates on both sides, while admitting excellencies in the form of each variety of catalogue, have failed to observe that neither style is perfect, because not possessing *all* the advantages claimed for both. It has been claimed of course that one form or another has a majority of advantages; but that scarcely affects the point that neither of

them has all. The controversy has therefore been raging over efforts to make one inefficient system serve every purpose. Let us consider for a little the varied information which frequenters of libraries desire. Every librarian knows that before all others facts or *Subjects* are first in demand. In reference libraries, for example, such questions as, "Have you a book on the Indian Mutiny?" "What is the origin of a given quotation?" "When was the Battle of Alma fought?" "What is the flash point of oils?" "Have you a book on cantilever bridges?" "What is the meaning of a given word?" "I want an essay on whales," and so on, are asked twenty times as often as questions concerning authors. Next in importance come questions as to books of a certain *Title.* Questions relating to *Authors* rarely extend to more than demands for other works by the same writer; while questions concerning works written in a certain *Form* (Essays, Poetry, Grammars, etc.) are perhaps least often asked. It is necessary to enforce this statement as to subjects being most in demand, as on this point more than any other turns most of the original argument against classified catalogues. We therefore quote the remark[1] of Mr. F. T. Barrett, himself an opponent of classified catalogues, but a librarian whose experience in all that relates to readers and their wants is second to none. He says: "In my experience the enquiry which is most frequently made is, What is there in the library on some stated subject?" This is in harmony with the experience of every librarian, and may be taken as definitely settling the matter. How, then, does it happen that, from the time of De Morgan till now, there are to be found many influential writers who contend that an alphabetical catalogue under authors' names is all-sufficient? The reason is not far to seek. Most of these men are scholars who have devoted years to the study of particular topics, and who are in consequence saturated with knowledge of the writers on their subjects; or they may be bibliographers or literary men to whom the biographical interest

[1] In a paper on "Catalogues" read before the International Library Conference, 1897.

of author entries appeals with peculiar force. The practice of the British Museum in providing until recently only one huge author-alphabetical catalogue has also had some influence on the opinion of many authors. But none of these opinions have any value where the needs of the general public are concerned. The authorship of a particular book, or piece of music, or work of art, or popular play is about the last thing in connection therewith that the average citizen will remember. When a lady enquires for a song at a music-seller's, it is not by the name of the composer, but almost invariably by its title. So it is as regards books; and Thackeray's little scene in *Pendennis*, where Arthur tells Miss Costigan that Kotzebue wrote *The Stranger*, and she declares that "the man's name at the beginning of the book was Thompson"! may be taken as an exact record of the general state of public interest and knowledge of authors. Save to a very small class of special students (biographers and bibliographers) author catalogues are in themselves of comparatively little value. It seems extraordinary that, at this late time in the life of public libraries, any arguments against the exclusive use of author lists should be necessary. But the inexperienced opinions of past and present writers in positions of authority render some defence needful.

48. Augustus De Morgan was one of the first to attack classified catalogues, and his opinions have been quoted and accepted in many quarters without qualification. He says[1]: "An alphabetical catalogue has this great advantage, that all the works of the same author come together." [This depends largely on the cataloguer and his knowledge of anonyma and pseudonyma.] "Those who have had to hunt up old subjects know very well that of all lots which it is useful to find in one place the works of one given author are those which occur most frequently. Again, those who go to a library to read upon a given subject generally know what authors they want." The late W. S. Jevons agrees entirely in this view,[2] and adds "that classification according to the name of the author is the only one practicable in a large library, and

[1] *Dublin Review* (1846). [2] *Principles of Science.*

this method has been admirably carried out in the great catalogue of the British Museum. The name of the author is the most precise circumstance concerning a book which usually dwells in the memory." As we have just shown, the opinion of every experienced librarian is dead against this assumption, and it is only necessary to quote the remark of Edwards in reference to the author catalogue of the British Museum: "Many a reader has spent whole days in book-hunting which ought to have been spent in book-reading." Both De Morgan and Jevons wrote from the purely personal standpoint. Each was a scholar, knowing nearly everything there was to be known about his special subject. They lived and wrote before perfect catalogues or classifications had been introduced, and De Morgan illustrates in his own case the folly of depending on memory and author lists alone for bibliographical or other information concerning subjects. If De Morgan could have had access to properly compiled subject catalogues, the little bibliography of *Arithmetical Books* (1847), on which he must have been engaged when he laid down the law regarding author catalogues, would have been rendered much more perfect. The very best mathematical or logical memory in the world is not capacious enough to retain *everything* relating to even a small subject; hence the enormous advantage of subject lists in one place over author entries scattered in alphabetical order throughout a catalogue of perhaps a hundred thousand titles. Practically the whole of the classified catalogues to which writers like De Morgan (1845–46) and Jevons (1873) had access were imperfectly indexed or not indexed at all, and down to comparatively recent times complete systematic classifications and catalogues were non-existent. Mr. Cutter, writing in 1876,[1] states that he only knew of three classified catalogues in the United States which had proper indexes. These were issued by the Mercantile Library of Philadelphia (1850), the Newark Library Association (1857), and the California State Law Library (1870). In England there was an equal paucity of good examples, though several indexed

[1] *Public Libraries of America.*

catalogues, such as the Royal Institution (1857), had been issued, and even in 1805 an attempt had been made, in a catalogue of the Signet Library, Edinburgh,[1] to render the contents of the classified portion available by means of indexes. But the general run of catalogues were bare, unindexed, classified inventories, to use which it was necessary, as De Morgan points out, for readers to place themselves in the impossible mental position of seeing everything from the compiler's standpoint.

49. About 1857 a new order of catalogue began to become common, which has remained till now the standard pattern in most British public libraries. This was the so-called Dictionary[2] catalogue, arranged in a single alphabet of authors, titles, and such subject words as occurred on the title-pages. The once widely circulated and strongly believed dictum that no cataloguer had a right to go beyond the title-page of a book for particulars of its subject or scope was originally laid down by Dr. Crestadoro, of Manchester, and adopted in many quarters, as plenty of catalogues remain to prove. Of course the main idea in propounding such a doctrine was based on the De Morgan-Jevons formulæ that readers knew either the authors or titles of the books they wanted and did not particularly require to know about subject matter. Most modern librarians have abandoned this position, and many good examples exist of dictionary catalogues accurately and intelligently compiled. But few, if any, of such catalogues succeed in giving in one comprehensive view the titles of all books possessed by the library on important subjects. In British examples of such dictionary catalogues the failure is very marked, even in the few cases where cross-references intended to bind together the disjointed parts of a main subject have been lavishly used.

[1] *Classified Catalogue*, compiled by George Sandy, librarian, "with an Alphabetical Index of Authors and Subjects."

[2] The first English use of this term seems to be that on the title-page of the Middle Temple Library (London) Catalogue of 1734—*Catalogus librorum Bibliothecæ Honorabili Societatis medii Templi Londini, ordine Dictionarii dispositus.*

We have already pointed out that neither the classified nor dictionary forms of catalogue are sufficient in themselves to convey every variety of information. For one thing, a classified catalogue spreads the works of certain authors, but collects and shows in close relationship those about subjects, specific and general. The ordinary dictionary catalogue shows the works of given authors all together in one place, but distributes the information concerning large topics, and frequently small ones also. For example, the student of Biology using a recent public-library dictionary catalogue would have to look in thirty-nine or more places for all the books bearing on the subject and its sub-divisions. He would not find anywhere a collective list of topics, but would have to range from one part of the alphabet to another in pursuit of information. Here are a few of the headings in this particular catalogue, just as we found or remembered them: Biology, Sea-shore and Sea-weeds, Botany, Natural History, Aquarium, Birds, Evolution, Fishes, Insects, Microscope, Marine Zoology, Ocean, Palæontology, Taxidermy, Zoology, Science, Physiology, Ferns, Fungi, Bacteria, Flowers, Trees, Molluscs, Apes, Anthropology, Monkeys, Reptiles, Mosses, Butterflies, Spiders, Heredity, Crustacea, Embryology, Worms, etc. In a classified catalogue the reader would find all the biological works collected in systematic order within a few pages, while the alphabetical index would instantly guide him to any specific heading. Another point to be considered as regards dictionary catalogues in one alphabet is the additional cost of repeating entries under author, subject, and title. In classified catalogues one full entry under the class usually suffices, all the relative index entries being merely single words or short lines.

50. When all is said that can be said for and against each type of catalogue, it will be found by librarians that the public will derive most advantage, not from an attempt to make one of the two imperfect forms serve every requirement, but from the full provision of both varieties. No librarian has a right to assume that a classified catalogue alone will suit all his readers, nor must it be supposed either that alphabetical

catalogues are easier used or more appreciated by the public. Personal experience of both varieties and the success of classed catalogues in the United States have convinced us that readers in libraries use one sort with as much facility as another. It is all a matter of custom and experience. To young librarians we tender the advice that, when compiling alphabetical dictionary catalogues for printing, they should prepare adequate class lists as well, to be kept in MS. if the cost of printing is too great. And to those who prefer printed classified catalogues or class lists we advise an adequate provision of alphabetical indexes, either printed or MS. By this combination of advantages the catalogue will more perfectly make known the treasures and resources of the library, while there will be added the satisfaction of knowing that all classes of reader and all kinds of enquiry about books are likely to be adequately served and answered. It may be mentioned incidentally that exact classifications and classified catalogues possess one great advantage in common which is not shared by any purely alphabetical or broad system. When libraries are being formed, the task of selecting representative books on specific subjects and classes at large is greatly simplified and facilitated by the suggestive tables of relative subjects always to be found in close methods of classification. Any one who uses the *English Catalogue*, or some such alphabetical list, and afterwards compiles his lists from Sonnenschein's *Best Books*, will be strongly impressed with the truth of this statement.

51. One of the most frequent objections urged against exact classification is the fact that many books treat of two or more different subjects, and consequently do not readily fall into any particular class or division. The books in question are not so much encyclopædic works, or even general works belonging to specific main classes, as books which treat of two or more main classes, and two or more divisions of a single main class. Hitherto it has been the practice of classifiers to treat such **composite books** as class-general or division-general works, the result being that in many cases they are separated entirely from other related topics and become lost

in a general heading. Of course this affects the shelves only. In the catalogue it is assumed that all necessary analyses and cross-references from and to headings are supplied. To partly get over the difficulty of separating books from the smallest divisions that will contain them, and to avoid making general classes or divisions mere refuges for everything doubtful or composite, we have proposed a method of marking, in the Adjustable Classification tabulated in Section 58, which will to some extent minimise the evil.

52. Proposals have been made at various times for classifying Fiction otherwise than in broad national or alphabetical divisions such as are adopted in various schemes, but so far none of them have been carried into actual practice. In 1881 Mr. A. P. Massey, of Cleveland, Ohio, published[1] a plan for numbering the surnames of novelists to facilitate shelving and charging, in a manner very similar to that used by Mr. Cutter in his author tables. Several librarians have given in their catalogues, under various historical headings, lists of novels dealing with particular periods or events. Historical novels have also been classified and tabulated in Bowen's *Historical Novels and Tales* (1882), and elaborately catalogued by the libraries of Boston (U.S.), San Francisco, Los Angeles (U.S.), Clerkenwell, Peterborough, etc. But no attempt has been made to extinguish the class entirely by distributing its contents among the other classes of the library. A jocular proposal to this effect was made in an article on "Fiction Classification" contributed to the *Library* of 1896 by the present writer. In this it was pointed out that Fiction is only a method of "instruction by parable," and that novels generally had subject matter sufficiently definite to enable them to be classed like formal treatises on sciences, history, or philosophy. Didactic poetry also lends itself to the same kind of treatment, and no doubt the day will come when books will be classified *only* according to their subject matter, and not by the particular *form* in which they are written. Metrical chronicles, like those of Wyntoun, can only be called poetry by a very wide stretch

[1] In the *Library Journal*, Vol. VI. (1881), = "Classification of Fiction."

of indulgence; and there are hundreds of other works in rhyme which are equally devoted to other prosaic subjects. But difficulty arises when a rule has to be rigidly applied all round. Charles Reade's *It is Never Too Late to Mend* is a contribution, of a sort, to the literature of prison management; and Scott's *Quentin Durward* may be regarded as a masterly sketch of the crafty Louis IX. Yet to many minds it would seem an outrage to class the former in Social Science and the latter in Biography or History. And would it not be a frightful strain upon one's reverence for literary art and sympathy with traditional usages to class imaginative works like Thomson's *Seasons* as Physiography, Falconer's *Shipwreck* as Navigation, Milton's *Paradise Lost* as Theology, or Goldsmith's *Deserted Village* as Irish Topography?

53. To avoid some of the difficulties of classification, especially in regard to overlapping classes or topics, attempts have been made at **national** divisions, of which Mr. Cutter's "local" list may be mentioned as an instance. There is a considerable attraction about the plan of adopting nationality as the basis for classification, and in many cases a real convenience would result. An ingenious mind could very easily elaborate such a method by starting with the assumption that all literature is divisible into two main classes, the Abstract and the National. Books which treat of sciences or arts in the abstract without particular reference to geographical areas could be classified according to any minute scheme as at present. Books treating of sciences or arts with reference to nationality could be classified under each country in the order of the abstract main classes. Thus a result would be obtained like this:

ABSTRACT. Class A, B, C, D, E, F, G, etc.
NATIONAL. England. Class A, B, C, D, E, F, and so on.

We have never seen a classification proposed or carried out on this basis, but the suggestion is worth consideration. So far as real saving of numbers or places is concerned, we think there would be none, because, if the Botany of England did

not appear in Abstract, Class A, it would have to appear in National, England, Class A; and so with every other country. We recommend this system to young librarians for consideration and study.

Our descriptions of book arrangement on the shelves have been mainly confined to those by authors, numbers, subjects, and sizes; but other proposals have been made from time to time. It will be sufficient to briefly refer to Mr. W. S. Biscoe's "Chronological Arrangement on Shelves," which was proposed in the *Library Journal* (1885). For certain subjects or special collections a chronological arrangement has decided advantages, but for general libraries it cannot be recommended. Mr. Biscoe's proposal is to assign a letter for certain groups of years thus:

A = Before Christ	J = 1830 to 1839
B = 0 to 999	K = 1840 to 1849
C = 1000 to 1499	L = 1850 to 1859
D = 1500 to 1599	M = 1860 to 1869
E = 1600 to 1699	N = 1870 to 1879
F = 1700 to 1799	O = 1880 to 1889
G = 1800 to 1809	P = 1890 to 1899
H = 1810 to 1819	Q = 1900 to 1909
I = 1820 to 1829	R = 1910 to 1919.

Undated books to be approximately placed and marked with the letter of the supposed date. Thus M would indicate a book issued between 1860 and 1869. All other books receive letters and numbers in this manner: 1623 = E 23; 1814 = H 14; 1898 = P 98, and so on. The letter represents a century or decade, and the figures the actual year of the century.

CHAPTER VI

ADJUSTABLE CLASSIFICATION SCHEME

54. THIS method of classification has been compiled largely in response to a demand for an English scheme with a notation enabling continual intercalation of divisions and single topics or books to be carried on. The Quinn-Brown method (Section 33) has been used as a basis, but suggestions have been freely adopted from every important classification described in this Manual.

The name "Adjustable" has been taken to distinguish the system from all others and to describe its principal feature.

The **main classes** are distinguished by the first eleven letters of the alphabet, excluding I, and are arranged thus:

A. Sciences
B. Useful Arts
C. Fine and Recreative Arts
D. Social and Political Science
E. Philosophy and Religion
F. History and Geography
G. Biography and Correspondence
H. Language and Literature
J. Poetry and Drama
K. Prose Fiction
L. Miscellaneous

Should it be thought desirable to have more main classes, or to divide any of those already fixed, double letters can be used for the purpose, as shown below:

A. Natural Sciences
AA. Mathematical Sciences
B. Useful Arts
C. Fine Arts
CC. Recreative Arts
D. Social Science
DD. Political Science
E. Philosophy
EE. Religion
And so on

When this is done, it will be necessary, or at least desirable, to renumber the divisions under each main class, and change the reference numbers in the index.

In each main class the class letter alone is given to general works covering the whole or a considerable portion of the subject matter of the class at large. Thus B would mark all the general treatises or dictionaries on the Useful Arts; G general collections of Biography. The letters from M to Z can be reserved for special or local collections which are kept separate. It has not been thought advisable to provide for an elaborate system of sub-classes, divisions, and sub-divisions, but simply to number in one sequence of even numbers each sub-class or division in its order. This enables the class of most books to be easily expressed by the plain notation of a letter and a figure or two—G 2, B 30, F 196, etc. The odd numbers are reserved for fresh divisions of the main classes, and it is thought this feature will be found useful in most libraries where new subjects are continually cropping up.

If it is absolutely necessary to use more divisions than the scheme provides, even when the odd numbers are all appropriated, this can be done by adding letters thus:

F 641	F 642^{b}
F 641^{a}	F 642^{c}
F 641^{b}	F 643
F 642	F 644
F 642^{a}	

55. Minute **sub-division** to any extent may be carried out by simply adding to the divisional numbers, after a hyphen, a fresh series of odd numbers from 1 onwards in each case. Thus one might get this progression:

G 12.	Scottish General Biography	G 12-5.	Scottish Covenanters
G 12-1.	,, Artists	G 12-7.	,, Monarchs, etc.
G 12-3.	,, Authors		

which seems minute enough and clear enough for all ordinary purposes. Further sub-division is quite unnecessary in most public libraries; but should it be deemed absolutely indis-

pensable, it can be carried out with a little extra complication and trouble by starting another series of odd numbers after a colon, so :

G 12–3.	Scottish Authors, General	G 12–3 : 3.	Scottish Novelists
G 12–3 : 1.	,, Historians	G 12–3 : 5.	,, Poets

But the plan of wide sequential numbering adopted in each class should render the use of wearisome sub-division almost needless in the majority of cases. As in the case of divisions, alternate numbers only need be used, the even series being available for additional sub-divisions.

56. In **applying the system** it is recommended that the class letter and number be used for shelving and cataloguing only, and that charging or other necessary registration be done by means of the accession numbers. Each book as received should get the usual progressive accession number, and in addition the class letter and number showing where it is to be located. For this system it is not necessary to number alcoves, presses, or shelves, as the books will stand in the order of the classification herein tabulated. Additions can be made at any time and at any point, and each book takes its place, if correctly marked, among all the other books on the same subject.

In the catalogue it will be advisable to print both accession and class numbers, one series on each margin, so that the system can be applied to libraries using indicators, cards, ledgers, or open access. Where an indicator is used the accession numbers must be kept in one sequence, and in the case of Cotgreave's variety the class letters and numbers must be written into the indicator books, while in the case of Chivers' variety the same must be done on the recording tabs, as a direction to the assistant. Or a brief application form may be used, giving both class and book numbers, as will be necessary in the case of the Elliot or any other indicator having numbered pigeon-holes.

57. The **arrangement of divisions** on the shelves will be by authors alphabetically. There is no absolute need to mark

individual books further if this is done properly. The accession number being used for charging, renders any system of author marks unnecessary. In open access libraries the shelves should be plainly marked with labels specifying their contents. Presses should also be marked with the names of the main classes shelved. It is further recommended that in such libraries the books on all shelves be differentiated by means of coloured labels, such as are generally used in British open access libraries, in order to aid the eye in detecting misplacements. The presence of a mere class or notation mark on the back of a book is not sufficient in itself to prevent misplacement, owing to the uniformity of the general appearance. It should be possible to detect instantly such a transposition as G 10 for C 10, without scanning each shelf carefully and separately.

58. Composite Books. When a book treats of two or three different classes, in whole or part, it is not to be put in Class L or L 34, but with the books in the class most fully covered by the preponderating subject (see Section 51). The author's description on the title-page is to be accepted as the authority for the relative importance of classes, the first subject word being always taken; but where this is vague, bulk must be taken to represent values. Thus a book entitled *Hints on Chemistry, Engraving, and Building Construction*, if put with Class L or L 34, is completely separated from all related subjects; but if marked A 250 × C 104 × B 60, and placed after A 250, its composite character is at once indicated, and the book shelved with the class of which its most important section treats. Luckily main classes are very seldom mixed like our example, unless in encyclopædic works, and it will not often be necessary to insert composite works like the one mentioned. The main value of this composite marking will be found in single main classes, in which examples frequently occur of books treating of two or three distinct divisions. Fortune's *Journey to the Capitals of Japan and China* (1863), if put in F 454, "Asia, General," is widely separated from all the other literature of both China and Japan; and though the catalogue would no doubt bring such scattered articles together,

it is just as desirable that the shelves should give the same information as far as physically possible. If, therefore, Fortune's book is marked F 508 × 470, the local section will be strengthened, and the general section, always a dumping ground for the vague or the complex, will be made less unwieldy and overcrowded. One of the best descriptions of the arid plains of Queensland will be found in Boothby's *On the Wallaby*, which contains a preliminary tour through Ceylon, the Malay Peninsula, Java, and New Guinea. The title gives some idea of this; but a very brief examination of the book will show the exact ground covered, and also bring out the fact that Queensland is the preponderating subject. If marked F 86, a valuable contribution to the descriptive topography of Queensland is separated from all other books on that topic; but if marked F 1290 × 86, it at once takes its place with the geographical division of which it principally treats, while at the same time it is qualified in such a manner as to indicate that it deals with other areas.

Three separate topics in one composite book seems a fair limit for the "General," which is not general enough to be separated from some allied class or division. When more than three independent classes are included in one book, it is best that it should be treated as an encyclopædic composite, and put in Class L 34. In the case of works treating of more than three independent divisions of a main class, the same rule is to be observed, the "General" number in each case being the receptacle.

59. As indicated above (Section 54), **special collections** of all kinds can be marked by the unused class letters M to Z. It is generally best not to incorporate such collections in the ordinary classification, but to shelve them apart. The books in a special collection, of whatever nature, are to be classified the same as other books; but a qualifying letter can be used to distinguish them. A collection of books on the county of Northampton could be indicated by the additional class letter N put before the ordinary class letter and number. For example:

NA 8.	Scientific Societies, Journals, Reports, etc.	NG 8.	Local Biography, General
NA 62.	Local Fauna	NH 158.	Glossaries
NA 106.	Ornithology	NH 384.	Libraries
ND 434.	Schools—Histories and Reports, etc.	NJ 14.	Poetry
			And so on

In ordinary libraries the sub-division of countries can be carried out by adding sub-divisional numbers to express the classification thus:

F 750.	Northamptonshire, Generally
750–1.	Scientific Societies, Journals
750–3.	Fauna and Flora
750–5.	Geology
	Etc.

Special collections of a certain author's works can also receive an independent letter; but in this case the following arrangement is recommended. In a collection relating to Shakespeare, Scott, Burns, or other great author, proceed thus:

S 1. Collected Editions in Chronological Order. Author's	S 7. Musical Settings of Works
S 2. Collected Editions in Chronological Order. Editors'	S 8. Dramatic Versions of Works
S 3. Selections	S 9. Pictures suggested by Works
S 4. Single Works in Chronological Order of Publication, Originals and Reprints together, and Parodies	S 10. Biographies
	S 11. Correspondence, including Autographs
S 5. Translations of Collected Works	S 12. Portraits
S 6. Translations of Single Works	S 13. Criticism, History, and Aids to Study of Works
	S 14. Periodicals and Societies
	S 15. Ana, Scraps, etc.
	S 16. Bibliography

Other varieties of special collections can be arranged in any order to suit local conditions; but as we have said before, it is best to keep such collections separate, as there will always be a tendency to distort classes or divisions by including specially fostered subjects.

60. In all schemes of classification the question of the **sizes of books** crops up as a disturbing or qualifying factor.

It would be an extravagant waste of space to shelve Owen Jones's *Grammar of Ornament* alongside Lewis Day's little books on the same subject, or to place the huge atlases of Johnston and Stanford cheek-by-jowl with pocket varieties. Convenience, considerations of appearance, and even tradition, all point to the separation of the great from the small as inevitable. New libraries should therefore provide adequate storage room for quarto and folio books in addition to ordinary octavos, and this is best done by erecting special cases with space for folios below and quartos above a projecting ledge about three feet from the floor. The classes will run in three separate sequences—one for demy 8vos and under, one for royal 4tos and under, and another for folios larger than the largest 4to and above that size. In the catalogue these can be indicated thus:

Octavos, etc.	No mark other than the class letter and number
Quartos	By an asterisk *before* the class letter, *F 90
Folios	By a small cipher *before* the class letter, °F 90

Experience proves that qualifying letters or signs put *after* numbers are generally overlooked. For staff purposes it is not needful to put guides, dummies, or directs on the shelves where folios and quartos ought to be. For the public, if open access is allowed, a general statement explanatory of the triple arrangement posted liberally about will be found ample; or class location books can be used. In Lending Libraries it will seldom be necessary, unless as regards Music, to provide much folio or quarto space. There are several good varieties of adjustable shelving now to be had, which greatly diminish the difficulties connected with size classification.

It only remains to state, as regards the classification itself, that the divisions "General" and "Special" provided all through the tables are intended to render sub-division easy when the library has attained very large dimensions. B 90 will probably contain every variety of *complete* general work on Civil Engineering; while for years to come the division B 92 will serve to mark works on single parts of the main topic, as

Bridges, Canals, Docks, Harbours, Roads, etc. When the time arrives, the only fresh mark necessary will be a simple figure added to the existing divisional number:

B 92–1. Bridges
B 92–3. Canals
B 92–5. Docks
B 92–7. Harbours
B 92–9. Roads

or whatever the subjects may be. There is no complication about this, and the sub-divisional numbers may be kept from the very first if thought necessary. The "Adjustable Classification" is not put forth as either perfect or complete, nor is the index more than a fair selection of likely subject words. Suggestions for improvement and notifications of errors or omissions will gladly be received by the author.

TABLES OF ADJUSTABLE CLASSIFICATION

A. SCIENCE, General
2. History
4. Theory and Philosophy
6. Periodicals
8. Societies
10. **Biology,** General
12. Theory and Evolution
14. Periodicals and Societies
16. Methods of Research
18. Microscopy and Laboratory Practice
20. General Collectors' Manuals, Menageries
22. Taxidermy
24. Systematic, General
26. Bacteriology
28. Popular [Essays and Sketches of Animal and Plant Life]
30. **Zoology, Man,** General
32. Periodicals and Societies
34. Prehistoric
36. Ethnology and Anthropology
38. Natural History and Homologies
40. Anatomy, General
42. Special
44. Periodicals and Societies
46. Physiology, General
48. Special Organs
50. Expression, Temperament
52. **Zoology, Animal,** General. History, Theory
54. Periodicals
56. Societies
58. Systematic, General
60. Classification and Distribution
62. Local Fauna
64. Comparative Anatomy and Physiology
66. Embryology
68. Popular [Essays and Sketches of Animal Life]
70. **Vertebrates,** General
72. **Mammalia,** General
74. Economic
76. Primates (Monkeys, etc.)
78. Chiroptera (Bats)
80. Insectivora (Insect-eaters)
82. Carnivora (Flesh-eaters: Lions, Tigers, Dogs, Cats)
84. Economic (Dogs, Cats, etc.)
86. Rodentia (Gnawers: Rats, Mice, etc.)
88. Economic
90. Ungulata (Hoofed animals)
92. Economic
94. Sirenia (Manatees, *vul.* Mermaids)
96. Cetacea (Whales, Seals, etc.)
98. Edentata (Sloths, etc.)
100. Effodientia (Pangolins)
102. Marsupialia (Pouched mammals: Kangaroos)
104. Monotremata (Egg-laying mammals: Platypus)
106. **Birds,** General

A 106. Economic Ornithology
110. Raptores (Birds of prey: Eagles, Owls)
112. Insessores (Perching birds)
114. Scansores (Climbers: Parrots, Cuckoos)
116. Rasores (Scratchers: Pigeons, Pheasants, Fowls)
118. Economic (Poultry)
120. Cursores (Runners: Ostriches)
122. Grallatores (Waders: Cranes, Bustards)
124. Natatores (Swimmers: Swans, Ducks, Gulls)
126. Periodicals
128. Societies
130. **Reptiles**, General
132. Crocodilia (Crocodiles)
134. Chelonia (Turtles, Tortoises)
136. Sauria (Lizards)
138. Ophidia (Snakes)
140. **Amphibians** (Frogs, etc.)
142. **Fishes**, General
144. Special
146. Economic (Fish culture)
148. Minor Classes of Vertebrates
150. **Invertebrates**, General
152. **Crustacea** (Crabs, Lobsters, etc.)
154. **Arachnida** (Spiders)
156. **Myriapoda** (Centipedes)
158. **Insects**, General
160. Economic, General
162. Coleoptera (Beetles)
164. Orthoptera (Grasshoppers)
166. Neuroptera (Dragonflies)
168. Hymenoptera (Bees, Wasps, Ants)
170. Economic (Agriculture: Bee-keeping)
172. Lepidoptera (Butterflies, Moths)
174. Economic (Silkworms)
176. Hemiptera (Bugs, etc.)
178. Diptera (Flies)
180. Entomological Societies and Periodicals
182. **Mollusca** (Oysters, Snails, Cuttlefish)
184. **Brachiopoda** (Lampshells)
186. **Echinoderma** (Starfish, Sea Urchins)
188. **Bryozoa** (Sea Mats)
190. **Vermes** (Worms)
192. **Cœlentera** (Sponges, Corals, Jellyfish)
194. **Protozoa** (Animalculæ, Lowest forms of life)
196. **Botany.** Societies
198. Periodicals
200. General, Systematic
202. Popular (Essays and Sketches)
204. Phanerogamia, General (Flowering plants)
206. Special (Flowers, Leaves, etc.)
208. Cryptogamia, General
210. Filicinæ (Ferns)
212. Mosses
214. Fungi (Mushrooms)
216. Algæ (Seaweeds)
218. Local Floras
220. Economic, General
222. Special (Coffee, Cotton, Flax, Tea, Tobacco, etc.)
224. **Geology.** Societies and Periodicals
226. History and Theory
228. Systematic, General
230. Petrology, Lithology
232. Local
234. Field and Popular
236. Economic
238. Palæontology, General
240. Zoology
242. Botany
244. Mineralogy, General
246. Special
248. Crystallography

A 250. **Chemistry.** Societies and Periodicals
252. History and Theory
254. Systematic, General
256. Inorganic
258. Organic
260. Analysis
262. Electro-Chemistry
264. **Physics.** Societies and Periodicals
266. History and Theory
268. Systematic, General
270. Electricity and Magnetism, General
272. Special
274. Heat
276. Hydrostatics, Hydraulics
278. Light (Optics), General
280. Special
282. Mechanics (Dynamics), General
284. Special
286. Pneumatics
288. Sound (Acoustics)
290. **Physiography.** Societies and Periodicals
292. General
294. Earthquakes
296. Volcanoes, etc.
298. Glaciers, Icework, etc.
300. Meteorology
302. Hydrography, Ocean Currents, etc.
304. **Astronomy.** Societies and Periodicals
306. History and Theory
308. Systematic, General
310. Sun
312. Stars and Planets
314. Moon
316. Comets and Meteors
318. Popular (non-mathematical)
320. Nautical
322. **Mathematics.** Societies and Periodicals
324. History and Theory
326. Systematic, General
328. Algebra
330. Arithmetic
332. Book-keeping
334. Calculus
336. Geodesy and Surveying
338. Geometry, Conic Sections
340. Logarithms
342. Mensuration
344. Probabilities, Annuity Tables
346. Trigonometry
348. Weights and Measures
350. Metric System
352. **Occult Sciences,** General
354. Alchemy
356. Astrology
358. Magic, Necromancy
360. Mesmerism, Animal Magnetism
362. Psychical Research

B. USEFUL ARTS, General
2. Societies. Exhibitions
4. Periodicals
6. History
8. **Inventions**
10. Patents Specifications, British
12. American
14. French
16. German
18. Other
20. **Recipes,** General
22. **Agriculture.** Societies and Periodicals
24. History
26. General (British)
28. Farm Buildings and Implements
30. Farm Soils and Crops
32. Farm Stock, General (Breeding and management of Horses, Sheep, Cattle, Pigs, etc.)

B
34. Farm Stock, Special
36. Dairy Farming
38. Special Cultivations, Foreign [Coffee, Cotton, Tea, Sugar, Tobacco, Vines, etc.]
40. **Gardening** and Forestry. Societies and Periodicals
42. History
44. General
46. Fruit Culture
48. Flower Culture
50. Kitchen and Market Gardening
52. Landscape and Formal Gardening
54. Window Gardening
56. Forestry, General
58. Special
60. **Building.** Societies and Periodicals
62. General
64. Construction, General
66. Special
68. Materials, General
70. Special [Bricks, Lime, Stones, Timber, etc.]
72. House Decoration
74. Sanitation, Ventilation, Gas-fitting, etc.
76. **Engineering.** Societies and Periodicals
78. General
80. History
82. **Aerial.** Societies
84. General
86. Special
88. **Civil.** Societies and Periodicals
90. General
92. Special
94. **Electrical.** Societies and Periodicals
96. General
98. Lighting
100. Telegraphy
102. Telephone, Phonograph, etc.
104. **Mechanical.** Societies and Periodicals
106. General
108. Applied Mechanics
110. Workshop Practice
112. Machinery, Tools
114. **Military,** and Art of War. Periodicals and Societies
116. General
118. Army Organisation, British
120. Foreign
122. Arms and Armour
124. Artillery
126. Cavalry
128. Engineers
130. Infantry
132. Militia
134. Volunteers
136. Yeomanry
138. Fortification
140. Barracks, Transport, etc.
142. Tactics
144. **Naval.** Societies and Periodicals
146. General
148. Navy Administration, British
150. Foreign
152. Tactics and Warfare
154. Shipbuilding, General
156. Special
158. Seamanship and Navigation, General
160. Special. Charts, Sailing Directions
162. Lifeboats
164. Lighthouses
166. Coastguard
168. Merchant Service and Sailors
170. **Mining** and Quarrying. Societies and Periodicals
172. History
174. General
176. Prospecting

B 178. Coal Mining
180. Iron ,,
182. Gold ,,
184. Silver ,,
186. Lead ,,
188. Salt ,,
190. Tin ,,
192. **Railway.** Societies and Periodicals
194. General
196. Special (including Tramways)
198. **Steam and Gas.** Societies and Periodicals
200. History
202. Theory
204. Systematic, General
206. Stationery Engines
208. Marine Engines
210. Locomotive Engines
212. Gas Engines
214. Other Engines
216. **Metallurgy.** Societies and Periodicals
218. General
220. Assaying
222. Alloys
224. Casting and Founding
226. Iron and Steel
228. Gold
230. Silver
232. Lead
234. Copper
236. Other
238. Electro-Metallurgy
240. **Manufactures and Trades.** Societies and Periodicals
242. General
244. **Book** Production, General
246. Paper Manufacture. Societies and Periodicals
248. General
250. Typefounding, General
252. Typefounder's Catalogues
254. Printing. Societies and Periodicals
256. General
258. Special
260. Binding. Periodicals
262. General
264. Special
266. Publishing. Societies and Periodicals
268. General
270. Bookselling and Stationery. Periodicals
272. General
274. **Chemical** Trades. Societies and Periodicals
276. General
278. Chemicals (Acids, Alkalies, Drugs, etc.)
280. Dyeing and Bleaching
282. Explosives, Fireworks. Fuel
284. Perfumes
286. Brewing
288. Distilling
290. Wine-making
292. Oils, Colours, etc.
294. Soap and Candles
296. Varnishes, Glues, Rubber, etc.
298. **Clothing** and Hosiery Trades
300. **Coach** and Carriage Building, General
302. Special
304. Motor-cars
306. **Fisheries.** Societies and Periodicals
308. History
310. General
312. Special
314. **Food** Production, General
316. Special
318. **Gas.** Societies and Periodicals
320. History
322. General

B 324. Special
326. **Glass,** General
328. Special
330. **Leather.** Periodicals
332. General
334. Boot and Shoemaking, Saddlery
336. **Metal-working,** General
338. Blacksmithing
340. Brass-working
342. Gold-working
344. Silver-working
346. Jewellery Manufacture. *See also* Costume, 504
348. Lead and Copper-working
350. Sheet Metal-working
352. Cutlery
354. Gunsmithing
356. Locks and Safes
358. Cycles and Sewing Machines. Periodicals
360. General
362. Watch and Clock-making (Horology). Periodicals, General
364. Special
366. Dialling and Dials
368. Bells
370. Scientific Instrument-making. Periodicals
372. General
374. Other Trades
376. **Musical Instruments,** General
378. Special
380. **Pottery.** Societies and Periodicals
382. History
384. General
386. Special
388. **Textiles.** Societies and Periodicals
390. General
392. Carpets. Tapestry, Rope and Twine
394. Cotton. Spinning and Weaving
396. Lace
398. Linen
400. Silk
402. Wool. Spinning and Weaving
404. **Wood-working.** Societies and Periodicals
406. General
408. Carpentry and Joinery, General
410. Special
412. Furniture and Upholstery, General
414. Special
416. Pattern-making
418. Picture-framing, Toys, etc.
420. Other Branches
422. **Shopkeepers'** Manuals
424. **Medical Science.** Societies and Periodicals
426. History
428. General
430. Medicine, Allopathic
432. Homœopathic
434. Hydropathic
436. Domestic
438. Diseases, General
440. Special and Local
442. Obstetrics. Diseases of Women
444. Diseases of Children
446. Pathology
448. Materia Medica, Therapeutics, Pharmacy
450. Medical Jurisprudence and Toxicology
452. Surgery, General
454. Dental
456. Special and Local
458. Nursing. Periodicals
460. General
462. Special
464. Hospitals and Asylums
466. Ambulance, First Aid, Life-saving

B 468. Hygiene and Demography. Societies and Periodicals
470. General
472. Public Health, General
474. Special
476. Personal Health, General
478. Special
480. Physical Training
482. **Veterinary Medicine** and Farriery. Societies and Periodicals
484. General
486. Special
488. **Household Arts.** Periodicals
490. General
492. Furnishing
494. Domestic Economy. Laundry Work
496. Foods, Dining, Beverages
498. Cookery, Confectionery
500. Needlework
502. Dressmaking, Millinery
504. Costume and Dress [including Historical, National, and Fancy Costume, Jewellery, Rings, Regalia, Insignia]
506. Toilet
508. Domestic Servants, Duties, etc.

O. FINE AND RECREATIVE ARTS, General

2. Fine Art: History
4. Theory and Criticism
6. National Art, General
8. Ancient
10. Modern
12. Special Countries
14. Societies, Exhibitions
16. Periodicals
18. **Painting.** Societies
20. Periodicals
22. General
24. History, General
26. Theory and Criticism
28. Galleries and Collections
30. National Schools
32. Practice, General
34. Artistic Anatomy
36. Figure Painting
38. Portrait Painting
40. Miniature Painting
42. Landscape Painting
44. Marine Painting
46. Flower Painting
48. Oil Painting
50. Water-colour Painting
52. Glass and China
54. Special Varieties
56. **Drawing,** Freehand. General
58. Special
60. For Reproduction
62. Geometrical, General
64. Perspective, Model, Shadows
66. Technical, General
68. Machines, Trades
70. **Decoration.** Societies
72. Periodicals
74. General
76. Practice and Examples, General
78. Special
80. Alphabets, Monograms
82. Illumination
84. Applied to Arts and Crafts, General
86. Ceramics and Glass, General
88. Special
90. Leather
92. Metal-work, General
94. Special
96. Textiles, General
98. Special
100. Wood-work, General
102. Special

O 104. **Engraving.** Societies
106. Periodicals
108. General
110. History, General
112. Special
114. Practice, General
116. Special
118. Collected Examples
120. **Etching.** Societies
122. Periodicals
124. General
126. Special
128. Collected Examples
130. **Lithography.** Periodicals
132. General
134. Special
136. Collected Examples
138. **Process Work,** General
140. Special
142. **Photography.** Societies
144. Periodicals
146. General
148. Scientific
150. Artistic
152. Processes and Printing
154. Collected Examples
156. **Writing,** General
158. History
160. Special Treatises
162. **Shorthand.** Periodicals
164. General
166. Special
168. **Collecting,** Art Objects, General
170. Autographs
172. Book Plates
174. Crests
176. Postmarks
178. Prints [other than C 118]
180. Stamps. Societies
182. Periodicals
184. General
186. Special
188. **Architecture.** Societies
190. Periodicals
192. History, General
194. Special
196. Theory and Criticism
198. Practice, General
200. Ancient, General
202. Special
204. Modern, General
206. Special
208. Ecclesiastical Buildings
210. State and Municipal Buildings
212. Hospitals and Schools
214. Theatres
216. Farms, Mills, etc.
218. Residential Buildings
220. Military
222. Drawing and Design
224. Ornament, General
226. Special
228. Antiquities, General
230. Ecclesiology
232. Monumental Brasses
234. Crosses, Streets
236. Special
238. **Sculpture,** General
240. History, General
242. Special
244. Practice, General
246. Special
248. Carving and Modelling
250. Bronzes, Monuments, etc.
252. **Music.** Societies
254. Periodicals
256. General
258. Criticism, Æsthetics
260. History General
262. Special
264. Scientific Basis
266. Nomenclature
268. Elements, General
270. Special

C 272. Tonic Sol-fa, General
274. Special
276. Other Notations
278. Harmony
280. Counterpoint and Fugue
282. Composition and Form
284. Instrumentation (Orchestras and Bands). Periodicals
286. General Text-books
288. Instruments, General, History, etc.
290. Orchestral Music [Full Scores of Symphonies, Overtures, String Quartets, etc.]
Instruments, Individual:
292. American or Reed Organ. Instruction
294. Music
296. Bagpipe. Instruction
298. Music
300. Banjo. Instruction
302. Music
304. Bassoon. Instruction
306. Music
308. Bombardon
310. Bugle
312. Clarinet. Instruction
314. Music
316. Concertina, Accordion, Melodeon. Instruction
318. Music
320. Cornet. Instruction
322. Music
324. Double Bass. Instruction
326. Music
328. Euphonium
330. Flageolet
332. Flute, Fife, Piccolo. Instruction
334. Music
336. French Horn. Instruction
338. Music
340. Guitar. Instruction
342. Music
344. Harmonium. Instruction
346. Music
348. Harp. Instruction
350. Music
352. Harpsichord. Instruction
354. Music
356. Lute. Instruction
358. Music
360. Mandoline. Instruction
362. Music
364. Oboe. Instruction
366. Music
368. Ophicleide
370. Organ. Periodicals and Societies
372. General
374. History
376. Instruction
378. Music
380. Pianoforte. Periodicals
382. General
384. History
386. Instruction
388. Music
390. Saxophone
392. Serpent
394. Trombone. Instruction
396. Music
398. Trumpet. Instruction
400. Music
402. Tuba
404. Viola. Instruction
406. Music
408. Violin. Periodicals
410. General
412. History
414. Instruction
416. Music
418. Violoncello. Instruction
420. Music
422. Zither
424. Other Instruments
426. Vocal Practice, General
428. Special

C 430. Singing, General
432. Special
434. Choir Training, Choral Societies
436. Operas and Dramatic Music
438. Oratorios
440. Cantatas
442. Church Music. Periodicals
444. General
446. Services
448. Masses
450. Anthems
452. Psalmody, General
454. Denominational
456. Hymns, General
458. Denominational
460. Chants and Chanting
462. Carols
464. Part Music, General
466. Glees and Madrigals
468. Part Songs
470. Rounds and Catches
472. Trios and Duets
474. Songs. Periodicals
476. General
478. National
480. Sacred
482. Comic
484. Nursery Songs
486. Special
488. Individual Composers
490. **Recreative Arts**, General
492. History
Games and Sports, Individual:
494. Periodicals, General
496. Angling. Periodicals
498. General
500. Special
502. Archery
504. Athletics. Periodicals
506. General
508. Running
510. Walking
512. Athletics, Special
514. Backgammon
516. Baseball, Rounders
518. Billiards, Bagatelle
520. Boating. Periodicals
522. General
524. Special
526. Bowling
528. Boxing (Prize-fighting), General
530. Special
532. Camping-out
534. Card Games, General
536. Whist
538. Ecarté
548. Others
550. Chess. Periodicals
552. General
554. Special
556. Cock-fighting, Bull-baiting, etc.
558. Conjuring
560. Coursing, Harriers
562. Cricket. Periodicals
564. General
566. Special
568. Croquet
570. Curling
572. Cycling. Periodicals
574. General
576. Special
578. Dancing, General
580. Special
582. Dice
584. Dominoes
586. Draughts or Checkers
588. Driving
590. Fencing, General
592. Special
594. Football, General
596. Special
598. Golf
600. Gymnastics, Acrobats
602. Hawking
604. Hockey or Shinty (Hurling)
606. Horse-racing. Periodicals

C 608. Horse-racing, General
610. Special
612. Hunting, General
614. Special
616. Lacrosse
618. Mountaineering
620. Polo
622. Puzzles, Riddles, Conundrums
624. Quoits
626. Racquets
628. Riding, Horsemanship
630. Shooting, General
632. Special
634. Skating and Rinking, General
636. Special
638. Skittles
640. Solitaire
642. Swimming, General
644. Special
646. Tennis
648. Theatricals, Private
650. Charades, etc.
652. Wrestling
654. Yachting, General
656. Special
658. Other Amusements

D. SOCIAL SCIENCE, General

2. Societies
4. Periodicals
6. History of Sociology
8. Theories
10. **Manners and Customs,** General
12. National
14. Games
16. Special
18. Marriage, General
20. Special
22. Women. Societies and Periodicals
24. Women, General
26. Special
28. Sex Questions
30. Population, General
32. Special
34. Vital Statistics
36. Temperance Question. Societies
38. Periodicals
40. General
42. Special
44. Emigration, General
46. Special
48. Pauperism
50. Charities. Societies and Periodicals
52. General
54. Special
56. Slavery, General
58. Special
60. Juvenile Delinquency
62. Crime and Punishment
64. Capital Punishment
66. Police, General
68. Special
70. Prisons, General
72. Special
74. Secret Societies, General
76. Special
78. Socialism, General
80. Special
82. Communism, Anarchy, Nihilism, etc.
84. Other Social Organisations
86. Freemasonry. Societies
88. Periodicals
90. General
92. Special
94. **Political Economy,** General
96. Societies
98. Periodicals
100. Theories
102. Labour Questions, General

D 104. Capital and Labour
106. Factory System
108. Trades Unions. Societies and Periodicals
110. General
112. Special
114. Wages Questions
116. Profit Sharing
118. Hours Question
120. Co-operation. Societies and Periodicals
122. General
124. Special
126. Friendly Societies
128. Periodicals
130. General
132. Special
134. Land Laws
136. Nationalisation
138. Tenures, Transfers, Rent
140. Allotments and Commons
142. Mining Royalties
144. Free Trade. Societies and Periodicals
146. General
148. Special
150. Protection, Tariffs, etc.
152. **Government and Politics**, General
154. Constitutional History, General
156. British
158. Other Nationalities
160. Law, General
162. British
164. Other Nations
166. Theories, General
168. Special
170. Monarchy
172. Democracy
174. Other Forms of Government
176. Science of Politics
178. Political Parties, General
180. Special
182. National
184. Public Meetings, Procedure
186. Civil Liberty, Citizenship
188. National Character, General
190. State Administration, General
192. British, General
194. Crown, Privileges, etc.
196. Parliament, General
198. House of Lords, Powers, Duties, etc.
200. Reform
202. Papers and Proceedings
204. History
206. House of Commons, Constitution
206. Laws and Procedure
210. History
212. Papers, Reports, Proceedings
214. Statutes
216. Journals
218. Debates
220. Reform
222. Elections
224. Suffrage
226. Government Departments
228. Foreign Policy, Treaties, Diplomatics
230. Taxation
232. Other Questions
234. United States, General
236. Special
238. France
240. Germany
242. Other Countries
244. Local Administration, General
246. Britain, General
248. Special (Local Rating, etc.)
250. England, General
252. Special (Counties, Parishes, Municipalities, etc.)
254. Scotland, General
256. Special
258. Ireland, General
260. Special

D 262. Local Administration, Wales, General
264. Special
266. United States
268. Other Nations
270. Church Establishments, General
272. Disestablishment
274. **Law** (Jurisprudence), General
276. Societies
278. Periodicals
280. Reports of Cases
282. History
284. Philosophy
286. Theories
288. National, General
290. British
292. English (Codes, Commentaries, etc., General)
294. Scottish (Codes, Commentaries, etc., General)
296. Irish (Codes, Commentaries, etc., General)
298. Welsh (Codes, Commentaries, etc., General)
300. Colonies (Codes, Commentaries, etc., General)
302. India (Codes, Commentaries, etc., General)
304. United States
306. France
308. Germany
310. Other Countries
312. Roman
314. International
316. Common (British)
318. Commercial and Maritime
320. Poor
322. Military
324. Canon
326. Criminal
328–348 Special Subjects (Patents, Property, etc., as represented)
350. Court Procedure and Practice
352. Trials, General
354. Special
356. **Commerce** and Industry, General
358. Societies
360. Periodicals
362. History
364. Guilds
366. **Finance,** Public
368. National Debt
370. Prices
372. Exchange
374. Cambistry
376. Speculation and Stocks, General
378. Periodicals
380. Money and Credit
382. Bimetallism
384. Banking. Societies and Periodicals
386. General
388. Special
390. Insurance. Societies and Periodicals
392. General
394. Life
396. Thrift and Saving
398. Pensions, Old Age, etc.
400. **Communications,** General
402. Special
404. Post Office. Periodicals
406. General
408. Special
410. Telegraphs
412. Industrial and Commercial Undertakings
414. Business Methods, General
416. Indexing and Précis
418. Commercial Correspondence
420. Advertising
422. Typewriting
424. Other Departments
426. **Education,** General

D 428. Societies
430. Periodicals
432. History, General
434. Special
436. Theories and Systems
438. School Management, General
440. Teachers
442. Hygiene
444. Buildings and Fittings
446. Methods of Instruction. Self-culture
448. Home
450. Kindergarten
452. Primary
454. Special Subjects
456. Technical and Manual
458. Ragged Schools
460. Reformatory and Industrial Schools
462. Blind
464. Deaf and Dumb
466. Other
468. Colleges and Universities, General
470. Societies and Periodicals
472. History, General
474. Special
476. University Organisation and Teaching
478. Calendars and Year Books
480. Degrees
482. Theological Colleges
484. Other Colleges

E. PHILOSOPHY AND RELIGION, General

2. **Philosophy.** Societies
4. Periodicals
6. History, General
8. Ancient
10. Modern
12. Ancient Systems or Schools, General
14. Special
16. Modern Systems or Schools, General
18. Special, by Authors as represented
20. **Logic,** General
22. Special
24. **Metaphysics**
26. **Mental Physiology,** General
28. Sleep and Dreams
30. Memory, Mnemonics
32. Phrenology
34. Physiognomy
36. **Psychology**
38. **Ethics,** General
40. Special (Amusements, etc.)
42. **Religion,** General
44. **Theology,** General
46. Natural, General
48. Special
50. Theism
52. Atheism and Deism
54. Science and Religion
56. Philosophy of Religion
58. Systematic Theology, General
60. History of Doctrine
62. Creeds
64. Eschatology. Future State
66. Special Treatises
68. Pastoral Theology, General
70. Clerical Profession
72. Homiletics
74. Sermons
76. Missions, General
78. Comparative Religion, General
80. Special
82. **Bible,** Texts, Polyglot
84. Hebrew
86. Greek
88. Latin

E 90-108. English [Wycliffe, Tyndal, Coverdale, Matthew, Taverner, Cranmer, Geneva, Bishops', Rheims, Douay]
110. Authorised Versions, 1611, etc.
112. Revised Versions, 1885
114. French
116. German
118. Dutch
120. Italian
122. Other European Versions
124. Oriental Versions
126. African Versions
128. American and Polynesian Versions
130. Old Testament, Separate Texts, Whole or Part
132. New Testament, Separate Texts, Whole or Part
134. Apocrypha, Separate Texts
136. Aids, Geography, Natural History
138. Dictionaries
140. Concordances
142. Commentaries, Complete Bible
144. Old Testament, Whole
146. Separate Books
148. New Testament, Whole
150. Separate Books
152. Apocrypha
154. Fathers (Patristics), General
156. Collections
158. Individual
160. Councils, General
162. Special
164. Religious Beliefs and Systems, General
166. Dictionaries of Faiths, Sects, etc.
168. Lives of Christ
170. **Christianity**, General
172. Philosophy
174. Ethics
176. History, General
178. Christian Evidences
180. **Christian Churches**, General (Doctrine, etc.)
182. Eastern and Greek, General
184. Special
186. Roman Catholic, General (Ritual, Doctrine, etc.)
188. National
190. Monastic and Religious Orders
192. Inquisition
194. Confession
196. Church Polity
198. Reformation, Controversial Works
200. Protestantism, General
202. Special
204. Lutheran Church
206. Calvinism
208. Episcopalianism, English, General
210. Creed and Doctrine
212. Church Polity
214. Liturgies
216. Hymnology
218. Scotch
220. United States
222. Sects and Heresies
224. Presbyterianism, English
226. Scottish
228. Other
230. Sects and Heresies
232. Polity
234. Liturgies
236. Hymnology
238. Congregationalism, General
240. Special
242. Polity
244. Liturgies and Hymnology
246. Methodism, General
248. Special
250. Polity
252. Liturgies

254. Methodism, Hymnology
256. Baptists, General
258. Special
260. Polity
262. Liturgies and Hymnology
264. Friends, Society of (Quakers), General
266. Special
268. Polity
270. Liturgies and Hymnology
272. Reformed (Dutch) Church
274. Moravians
278. Swedenborgians
280. Unitarians
282. Mormons
284. Other Christian Sects
286. **Christian Theology**, General
288. Trinity
290. Lord's Prayer
292. Sacraments, Lord's Supper
294. Baptism
296. Atonement
298. Faith
300. Justification
302. Sanctification
304. Predestination
306. Free Will
308. Judgment
310. Heaven, Angels
312. Hell, Devil
314. Other Topics
316. Collected Sermons
318. Sermons of Individuals
320–384. Reserved
386. **Non-Christian Religions**, General
388. Ancient Religions: Egyptian, Chaldæan, etc.
390. Judaism, General
392. Special
394. Sacred Books
396. Doctrine and Worship
398. Brahminism, General
400 Special
402. Doctrine and Worship
404. Buddhism, General
406. Special
408. Sacred Books
410. Doctrine and Worship
412. Confucianism, General
414. Special
416. Sacred Books
418. Mahometanism, General
420. Special
422. Sacred Books
424. Parsism and Zoroastrianism, General
426. Special
428. Other Oriental Religions
430. African Religions
432. Polynesian Religions
434. Other Ethnic Religions
436. Agnosticism
438. Positivism, Materialism
440. Rationalism
442. Other Beliefs
444. **Mythology and Folk-Lore**, General
446. Societies
448. Periodicals
450. Philosophy and Theory
452. Comparative
454. National
456. Demonology
458. Witchcraft
460. Fairies, Elves, etc.
462. Phallic and Serpent Worship
464. Divination, Fortune Telling, Second Sight, Palmistry
466. Spiritualism
468. Monsters: Dragons, Giants
470. Other Departments

F. HISTORY AND GEOGRAPHY, General
2. Historical Societies
4. Historical Periodicals
6. General, and Archæology (Ancient)
8. Chronology
10. Numismatics (Coins, Medals, Seals), General
12. National
14. Special
16. Societies and Periodicals
18. Military History, General
20. Naval History, General
22. Ecclesiastical History, General
24. Crusades and Chivalry
26. Philosophy and Study of History. Civilisation
28. **Ancient and Dispersed Nations,** General
30. Phœnicia
32. Judæa
34. Modern Jews, General
36. Societies
38. Periodicals
40. Special
42. Medo-Persia, General
44. Chaldæa
46. Assyria
48. Babylonia
50. Media
52. Lydia
54. Persia
56. Other Divisions
58. Minor Nationalities: Carthage, etc.
60. Gipsies, General
62. Special
64. **Modern History** and Archæology, General
66. Special
68. **Geography,** General
70. Societies
72. Periodicals
74. Historical Atlases
76. Geographical Atlases
78. Gazetteers and Dictionaries
80. Ancient and Classical Geography
82. Modern Political Geography
84. Voyages and Travels [Circumnavigation and two or more large areas], General Collections
86. Individual Travellers (alphabetically)
88. **AFRICA,** General [Travels, Atlases, etc.]
90. **North** Africa, General
92. Egypt, Ancient, General
94. History
96. Church
98. Geography
100. Modern, General
102. History
104. Geography
106. Nubia
108. Abyssinia
110. Somaliland
112. Barbary States, General
114. Tripoli
116. Algeria
118. Tunis
120. Morocco
122. Soudan, East
124. Sahara
126. **Central,** General
128. British East Africa (Ibea)
130. German East Africa
132. Congo Free State
134. French Congo
136. Angola
138. British Central Africa
140. Portuguese East Africa
142. **West,** General
144. Ashanti
146. Cameroons
148. Dahomey

F 150. French Guinea
152. Gold Coast
154. Guinea Coast
156. Liberia
158. Senegambia
160. Sierra Leone
162. Sokoto
164. West Soudan
166. **South**, General, History
168. Geography
170. Cape Colony
172. Natal and Zululand
174. Orange Free State
176. South African Republic (Transvaal)
178. German South-West Africa
180. British South Africa
182. Bechuanaland and Other Territories
184. **African Islands**, General
186. Socotra, Seychelles
188. Zanzibar
190. Madagascar
192. Mauritius
194. St. Helena, Ascension
196. Cape Verde Islands: Canary Islands, Madeira
198. **AMERICA** (N. and S.), General
200. History
202. Geography
204. **North**, General
206. History
208. Geography
210. **Canada**, General
212. History, Civil and Church, General
214. Geography, General
216. Social State, General
218. Nova Scotia, History
220. Geography
222. Prince Edward Island
224. New Brunswick
226. Quebec, History
228. Quebec, Geography
230. Ontario, History
232. Geography
234. Manitoba
236. British Columbia
238. North-West Territories
240. Newfoundland, History
242. Geography
244. Labrador
246. **United States**, General
248. History, Civil, General
250. Church
252. Military and Naval, General
254. Pre-Republican
256. Republican
258. Civil War, General
260. Confederate View
262. Federal View
264. Geography, General
266. Social State, General
268. States and Territories: History and Geography, General Divisions
270. Alabama; 272. Alaska; 274. Arizona; 276. Arkansas; 278. California; 280. Colorado; 282. Connecticut; 284. Delaware; 286. District of Columbia; 288. Florida; 290. Georgia; 292. Idaho; 294. Illinois; 296. Indian Territory; 298. Indiana; 300. Iowa; 302. Kansas; 304. Kentucky; 306. Louisiana; 308. Maine; 310. Maryland; 312. Massachusetts; 314. Michigan; 316. Minnesota; 318. Mississippi; 320. Missouri; 322. Montana; 324. Nebraska; 326. Nevada; 328. New Hampshire; 330. New Jersey; 332. New Mexico; 334. New York; 336. North Carolina; 338. North Dakota; 340. Ohio; 342. Oklahoma;

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344. Oregon; **346.** Pennsylvania; **348.** Rhode Island; **350.** South Carolina; **352.** South Dakota; **354.** Tennessee; **356.** Texas; **358.** Utah; **360.** Vermont; **362.** Virginia; **364.** Washington; **366.** West Virginia; **368.** Wisconsin; **370.** Wyoming

372. Mexico, General
374. History, Ancient
376. Modern
378. Geography
380. Central America and West Indian Islands, General
382. Central America, History
384. Geography
386. British Honduras
388. Costa Rica
390. Guatemala
392. Honduras
394. Nicaragua
396. San Salvador
398. West Indies, General
400. History
402. Geography
404. Bahamas and Bermudas
406. Cuba
408. Jamaica
410. Hayti and San Domingo
412. Porto Rico
414. Lesser Antilles (St. Thomas, Barbadoes, Trinidad, etc.)
416. Leeward Islands (Curaçao, etc.)
418. South America, General
420. History
422. Geography
424. Argentina (including Patagonia)
426. Bolivia
428. Brazil
430. Chili
432. Colombia
434. Ecuador
436. Guianas, General
438. British
440. Dutch
442. French
444. Paraguay
446. Peru
448. Uruguay
450. Venezuela
452. Falkland Islands
454. ASIA, General
456. Afghanistan
458. Arabia, History (Saracens or Moors, etc.)
460. Geography
462. Baluchistan
464. Ceylon
466. Chinese Empire, General
468. History, General
470. Geography, General
472. Mongolia
474. Tibet
476. Korea
478. Social State
480. India, General
482. Ancient History
484. Modern History, General
486. Mutiny
488. Geography, General
490. Special
492. Farther India, General
494. Burma
496. Siam
498. Annam and Tonkin
500. Malay Peninsula
502. Andaman and Nicobar Islands
504. Japan, General
506. History
508. Geography
510. Formosa
512. Social State
514. Persia, General
516. Modern History
518. Geography
520. Social State

F 522. **Russia** (Siberia, etc.), General
524. History
526. Geography
528. Social State
530. **Turkey**, General
532. History
534. Geography, General
536. Social State
538. Armenia
540. Palestine
542. Sinai
544. Asia Minor and Levant, General
546. **Malay Archipelago**, General
548. Borneo
550. Celebes
552. Java
554. Moluccas
556. Philippines
558. Sumatra, Sunda Islands
560 **EUROPE**, General
562. **History**, Civil, General
564. Church and Reformation, General
566. Military and Naval, General
568. **Dispersed and Merged Nations**, General
570. Goths, Vandals, Huns, Franks, Gauls
572. Moors or Saracens
574. Bohemia
576. Poland
578. **Geography**, General
580. Atlases, Gazetteers, etc.
582. **Social State**, General
584. **Austria-Hungary**, General
586. Civil History
588. Church History
590. Military History
592. Geography, General
594. Bohemia
596. Bosnia and Herzegovina
598. Hungary
600. Geography, Transylvania
602. Other Divisions
604. Social State
606. **Balkan States**, General
608. History, General
610. Geography, General
612. Bulgaria
614. Montenegro
616. Roumania
618. Servia
620. Social State
622. **British Islands**, General
624. Societies
626. Periodicals
628. History and Archæology, General
630. Civil, General
632. History, Church
634. Military History
636. Regimental Histories
638. Naval History
640. **British Empire**, General
642. History, General
644. Geography, General
646. Colonies, General
648. Polity, etc.
650. **British Islands, Geography**, General
652. Social State
654. **England**, General
656. History and Archæology, General
658. Early Times
660. Anglo-Saxons
662. Normans
664–670. Later Periods (chronologically)
672. Church
674. Military
676. Naval
678. Social State
680. Geography, General
682. Borders and North England, General

F 684. Geography, Lake District, General
686. East England, General
688. West England, General
690. Midlands, General
692. South England, General
694. Thames, General

Local History and Topography:

696. Bedford; 698. Berkshire; 700. Buckingham; 702. Cambridge; 704. Cheshire; 706. Cornwall (708. Scilly Isles); 710. Cumberland; 712. Derby; 714. Devon; 716. Dorset; 718. Durham; 720. Essex; 722. Gloucester; 724. Hampshire (726. Isle of Wight); 728. Hereford; 730. Hertford; 732. Huntingdon; 734. Kent; 736. Lancashire; 738. Leicester; 740. Lincoln; 742. London; 744. Middlesex; 746. Monmouth; 748. Norfolk; 750. Northampton; 752. Northumberland; 754. Nottingham; 756. Oxford; 758. Rutland; 760. Shropshire; 762. Somerset; 764. Stafford; 766. Suffolk; 768. Surrey; 770. Sussex; 772. Warwick; 774. Westmoreland; 776. Wiltshire; 778. Worcester; 780. York; 782. Isle of Man; 784. Channel Islands

786. **Wales**, General
788. History, Civil
790. Church
792. Social State
794. Geography, General
796. North Wales
798. South Wales

800. Anglesey; 802. Brecknock; 804. Cardigan; 806. Carmarthen; 808. Carnarvon; 810. Denbigh; 812. Flint; 814. Glamorgan; 816. Merioneth; 818. Montgomery; 820. Pembroke; 822. Radnor

824. **Ireland**, General
826. History, Civil
828. Church
830. Social State
832. Geography, General

834. Connaught; 836. Leinster; 838. Munster; 840. Ulster; 842. Antrim; 844. Armagh; 846. Carlow; 848. Cavan; 850. Clare; 852. Cork; 854. Donegal; 856. Down; 858. Dublin; 860. Fermanagh; 862. Galway; 864. Kerry; 866. Kildare; 868. Kilkenny; 870. King's County; 872. Leitrim; 874. Limerick; 876. Londonderry; 878. Longford; 880. Louth; 882. Mayo; 884. Meath; 886. Monaghan; 888. Queen's County; 890. Roscommon; 892. Sligo; 894. Tipperary; 896. Tyrone; 898. Waterford; 900. Westmeath; 902. Wexford; 904. Wicklow

906. **Scotland**, General
908. History, Civil
910. Church
912. Military and Clans
914. Social State
916. Geography, General

918. Borders; 920. Lowlands; 922. Galloway; 924. Hebrides; 926. Highlands; 928. Aberdeen; 930. Argyle; 932. Ayr; 934. Banff; 936. Berwick; 938. Bute; 940. Caithness; 942. Clackmannan; 944. Dumbarton; 946. Dum-

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fries; 948. Edinburgh; 950. Elgin or Moray; 952. Fife; 954. Forfar; 956. Haddington; 958. Inverness; 960. Kincardine; 962. Kinross; 964. Kirkcudbright; 966. Lanark; 968. Linlithgow; 970. Nairn; 972. Orkney; 974. Peebles; 976. Perth; 978. Renfrew; 980. Ross and Cromarty; 982. Roxburgh; 984. Selkirk; 986. Shetland; 988. Stirling; 990. Sutherland; 992. Wigtown

994. **France**, General
996. History, Civil, General
998. Great Revolution
1000. Church, General
1002. Huguenots
1004. Military and Naval
1006. Social State
1008. Geography, General
1010. Brittany; 1012. Normandy; 1014. Paris; 1016. Corsica; 1018. Other Districts
1020. **Germany**, General
1022. History, Civil
1024. Church
1026. Military and Naval
1028. Social State
1030. Geography, General
1032. Bavaria
1034. Prussia
1036. Saxony
1038. Other States
1040. **Greece, Ancient**, General
1042. History, General
1044. Athens; 1046. Corinth; 1048. Lacedæmonia; 1050. Macedonia; 1052. Other Divisions
1054. Geography, General
1056. Special
1058. Social State
1060. **Modern**, General
1062. History, General
1064. Byzantine Empire
1066. Church
1068. Geography, General
1070. Special
1072. Social State
1074. **Italy**, General
1076. History, Modern, General
1078. Church
1080. Military and Naval
1082. Social State
1084. Geography, General
1086. Lombardy
1088. Piedmont
1090. Venice
1092. Tuscany
1094. Rome
1096. Sicily
1098. Sardinia
1100. Other Divisions
1102. **Rome, Ancient**, General
1104. History, General
1106. Early History
1108. Republic
1110. Empire
1112. Eastern Empire
1114 Western Empire
1116. Geography, General
1118. Special
1120. Social State
1122. **Netherlands**, General
1124. History, General
1126. Geography, General
1128. Social State
1130. **Belgium**, General
1132. History, Civil
1134. Church
1136. Geography
1138. **Holland**, General
1140. History, Civil
1142. Church
1144. Geography
1146. **Portugal**, General

F 1148. History, Civil
1150. Church
1152. Social State
1154. Geography
1156. Azores
1158. **Russia,** General
1160. History, Civil
1162. Church
1164. Military
1166. Social State
1168. Geography, General
1170. Special
1172. Empire, General
1174. History
1176. Geography
1178. **Scandinavia,** General
1180. History, General
1182. Geography, General
1184. Social State
1186. **Denmark,** General
1188. History
1190. Geography
1192. Social State
1194. Iceland and Faroë Islands
1196. Danish Greenland
1198. **Norway,** General
1200. History
1202. Geography
1204. Social State
1206. **Sweden,** General
1208. History
1210. Geography
1212. Social State
1214. **Spain,** General
1216. History, Civil
1218. Church
1220. Military and Naval
1222. Geography
1224. Balearic Islands
1226. Social State
1228. **Switzerland,** General
1230. History, Civil
1232. Church
1234. Geography, General
1236. Geography, Alpine Books
1238. Social State
1240. **Turkey,** General
1242. Ottoman Empire, History
1244. Modern History
1246. Geography
1248. Social State
1250. **Mediterranean,** Shores and Islands, General
1252. Gibraltar
1254. Malta
1256. Crete or Candia
1258. Cyprus
1260. **Oceania,** General
1262. Geography
1264. **AUSTRALASIA,** General
1266. History
1268. Geography
1270. Social State
1272. **Australia,** General
1274. History
1276. Geography
1278. Social State
1280. **New South Wales,** General
1282. History
1284. Geography
1286. **Queensland,** General
1288. History
1290. Geography
1292. **South Australia,** General
1294. History
1296. Geography
1298. **Victoria,** General
1300. History
1302. Geography
1304. **West Australia,** General
1306. History
1308. Geography
1310. **New Zealand,** General
1312. History
1314. Geography
1316. Social State
1318. **Tasmania,** General

F 1320. History
1322. Geography
1324. Social State
1326. **New Guinea,** History
1328. Geography
1330. **Solomon** Islands
1332. **Polynesia,** General
1334. History
1336. Geography
1338. Fiji
1340. Hawaii or Sandwich Islands
1342. Pitcairn
1344. Marquesas
1346. Samoa
1348. Tahiti
1350. Other Islands
1352. **POLAR REGIONS,** General
1354. **Antarctic**
1356. **Arctic,** General
1358. North European
1360. American, Eskimos
1362. Asian
1364. Franklin Searches

G. BIOGRAPHY AND CORRESPONDENCE, General, Collective

2. Periodicals and Societies
4. **National,** Collective, American
6. British
8. English
10. Irish
12. Scottish
14. Welsh
16. French
18. German
20. Greek
22. Italian
24. Roman
26. Spanish
28. Other Nationalities
30. **Class,** Collective, Actors and Entertainers
32. Artists
34. Authors
36. Bible Characters
38. Clergy
40. Criminals: Robbers, Pirates, etc.
42. Eccentrics: Misers, Fools, Jesters, Characters, etc.
44. Educationists
46. Engineers
48. Industrial and Commercial
50. Legal
52. Medical
54. Military
56. Missionaries
58. Monarchs
60. Musicians
62. Naval
64. Nobility
66. Philanthropists
68. Philosophers
70. Politicians and Statesmen
72. Popes
74. Religion
76. Saints and Martyrs
78. Scientists
80. Sportsmen
82. Travellers, Geographers, Antiquaries
84. Women
86. Other Classes
88. **Individual** Biography and Criticism (alphabetically arranged)
90. **Genealogy** and Family History, General
92. Societies and Periodicals
94. Families, General
96. Individual

Q 98. Peerages, Baronetages, etc.
100. Dignities, General. Official Year Books
102. Orders of Knighthood
104. **Heraldry**, General
106. Societies and Periodicals
108. Special
110. National
112. Epitaphs
114. Portraits, Collections
116. Individual

H. LANGUAGE AND LITERATURE, General

2. **Language**, Societies
4. Periodicals
6. History, General
8. Theories
10. Comparative Philology
12. Phonetics, Phonology
14. Alphabets
16. Polyglot Dictionaries and Glossaries
18. **African**, General
20. Tribal Dialects
22. Egyptian, General
24. Coptic
26. Ethiopic
28. **American**, General
30. North, Aboriginal Dialects
32. Societies and Periodicals
34. South and Central, Ancient
36. **Asia**, General
38. Societies and Periodicals
40. History
42. Theories
44. Arabic. Dictionaries
46. Grammars
48. General Treatises
50. Chinese. Dictionaries
52. Chinese, Grammars
54. General Treatises
56. Indian, General
58. Sanskrit. Dictionaries
60. Grammars
62. General Treatises
64. Hindustani. Dictionaries
66. Grammars
68. General Treatises
70. Bengali
72. Tamil
74. Dravidian
76. Indo-Chinese
78. Other Languages
80. Japanese. Dictionaries
82. Grammars
84. General Treatises
86. Persian. Dictionaries
88. Grammars
90. General Treatises
92. Semitic, General
94. Hebrew. Dictionaries
96. Grammars
98. General Treatises
100. Syriac and Other Forms
102. Turkish. Dictionaries
106. Grammars
108. General Treatises
110. **Europe**, General
112. Societies and Periodicals
114. History
116. Theories
118. Celtic, General
120. Societies and Periodicals
122. Dictionaries
124. Grammars
126. Gaelic. Dictionaries
128. Grammars and General
130. Irish. Dictionaries
132. Grammars and General
134. Welsh. Dictionaries
136. Grammars and General
138. Cornish
140. Manx

H 142. Celtic, Basque, Armorican, etc.
144. Anglo-Saxon, General
146 Dictionaries
148. Grammars
150. English, General Treatises
152. Societies and Periodicals
154. History
156. Dictionaries, General
158. Local Glossaries (Dialects alphabetically)
160. Special Glossaries (Mining, etc.)
162. Americanisms
164. Slang
166. Rhyme
168. Synonyms, Treasuries, etc.
170. Grammar
172. Composition
174. Scottish, General
176. Dictionaries, General
178. Local Glossaries
180. Greek (Ancient). Dictionaries
182. Grammars
184. General Treatises
186. (Modern) Dictionaries
188. Grammars
190. General Treatises
192. Latin. Dictionaries
194. Grammars
196. General Treatises
198. Romance Languages
200. French. Dictionaries
202. Grammars
204. General Treatises
206. Italian. Dictionaries
208. Grammars
210. General Treatises
212. Spanish. Dictionaries
214. Grammars
216. General Treatises
218. Portuguese. Dictionaries
220. Grammars
222. General Treatises
224. Teutonic, General
226. Teutonic, Dictionaries
228. Theories
230. German. Dictionaries
232. Grammars
234. General Treatises
236. Dutch. Dictionaries
238. Grammars
240. General Treatises
242. Flemish
244. Scandinavian, General
246. Dictionaries
248. Old Norse
250. Icelandic
252. Danish. Dictionaries
254. Grammars and General
256. Norwegian. Dictionaries
258. Grammars and General
260. Swedish. Dictionaries
262. Grammars and General
264. Sclavonic, General
266. Dictionaries
268. Russian. Dictionaries
270. Grammars
272. General Treatises
274. Polish. Dictionaries
276. Grammars and General
278. Bohemian. Dictionaries
280. Grammars and General
282. Other Sclavonic Languages
284. Hungarian. Dictionaries
286. Grammars and General
288. Finnish. Dictionaries
290. Grammars and General
292. Gipsy Languages
294. Other European Languages or Dialects
296. **Polynesia**, General
298. Dictionaries
300. Grammars
302. **Universal** Languages
304. **Names**, General
306. Personal Names, General
308. Surnames
310. Christian Names

H 312. Place Names
314. **Oratory,** General
316. Collections
318. **Rhetoric** and Conversation
320. **Elocution,** General
322. Recitation, Collections
324. Ventriloquism and Mimicry
326. **Literary History,** Art, Criticism, General
328. American, General
330. Asiatic, General
332. Australian, General
334. European, General
336. French
338. German
340. Greek
342. Italian
344. Latin
346. Spanish
348. Russian
350. Scandinavian
352. Other European Countries (alphabetically)
354. English, General
356. Special Periods
358. Irish
360. Scottish
362. Welsh
364. **Bibliography,** General
366. Societies and Periodicals
368. National (alphabetically)
370. British Local
372. Class (Music, Art, etc.)
374. Special (Pseudonyms, etc.)
376. Of Individual Authors (alphabetically)
378. **Libraries,** General
380. Societies and Periodicals
382. History, General
384. Special
386. Catalogues (alphabetically by Towns)
388. Cataloguing (Rules, etc.)
390. Classification
392. Management, General
394. Special Topics
396. Readers' Aids and Guides
398. Historical Typography, General
400. Special
402. Bookbinding
404. Other Bibliographical Topics

J. POETRY AND THE DRAMA, General

2. Histories, General and National
4. Societies and Periodicals
6. Criticism, General and National
8. **Collections,** General

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10. American
12. British
14. English
16. Irish
18. Scotch
20. Welsh
22. French
24. German
26. Greek
28. Italian
30. Latin
32. Spanish
34. Russian
36. Other European
38. Indian
40. Chinese
42. Other Asiatic
44. Oriental, General
46. **Class,** Ballads
48. Songs
50. Odes
52. Sonnets
54. Parodies
56. Epigrams, Squibs, etc.

J 58. Nursery and Local Rhymes, Games
60. Other Forms
62. **Individual Authors**, alphabetically (Anonyma at end)
64. **Drama**, General
66. Societies and Periodicals
68. History, General
70. National
72. Criticism
74. Acting, Theatres, Circuses, Stage Management
76. **Collections** of Plays, General
78. National
80. Class (Comedies, Tragedies, Farces, etc.)
82. **Individual Authors**, alphabetically (Anonyma at end)

K. PROSE FICTION, General. Histories
2. History, National
4. Criticism
6. **Collections**, General. Periodicals
8. National
10. Class
12. **Individual Authors**, alphabetically (Anonyma at end)
14. **Juvenile Fiction**, General (including Fairy Tales)
16. Boys
18. Girls

L. MISCELLANEOUS
2. Encyclopædias, General
4. Societies
6. Periodicals
8. Newspapers
10. Directories, Year Books
12. Other Ephemera
14. Collected Works of General Authors
16. Miscellanies, Literary Annuals, etc.
18. Essays, Collections
20. Individual Authors, alphabetically (Anonyma at end)
22. Humour and Satire (not Fictional or Poetical)
24. Proverbs, Maxims
26. Emblems, Fables
28. Dialogues, Table Talk
30. Anecdotes, Ana
32. Quotations, Birthday Books, etc.; Confessional Albums, etc.
34. **Composite Works** (or Books treating of more than three definite topics)

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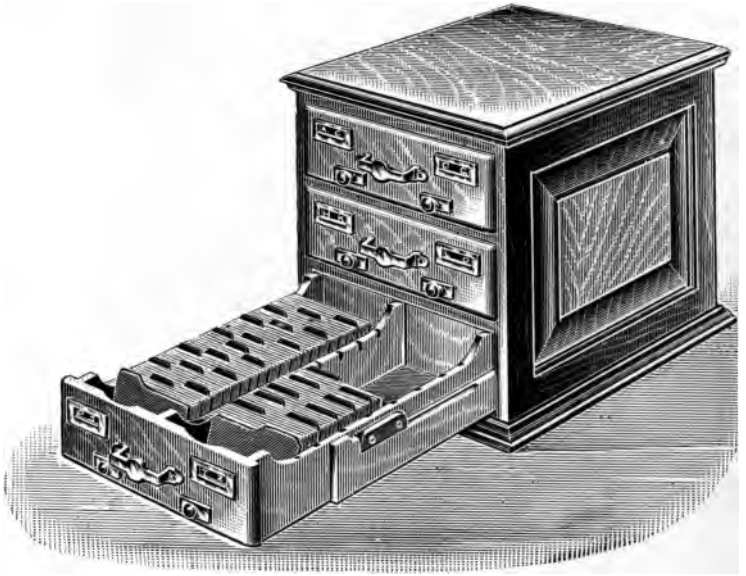

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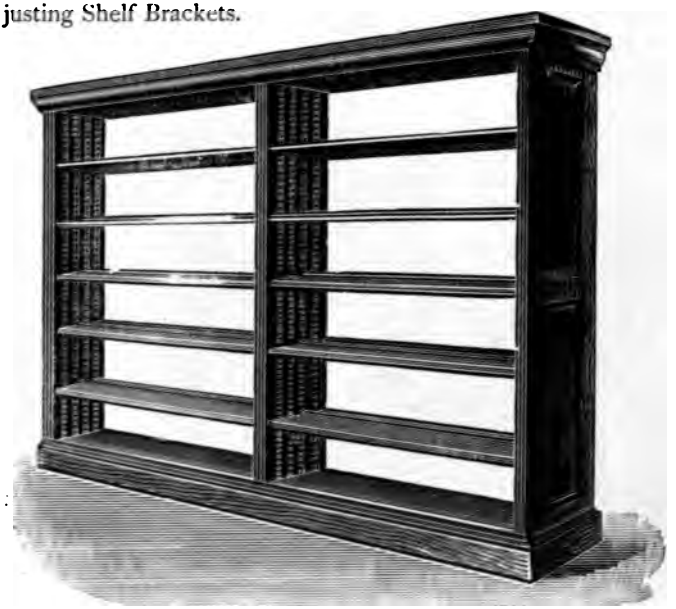

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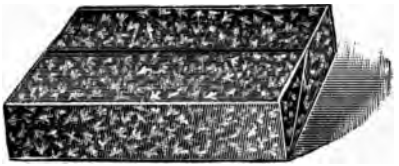

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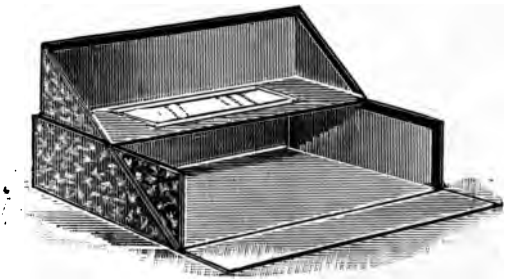

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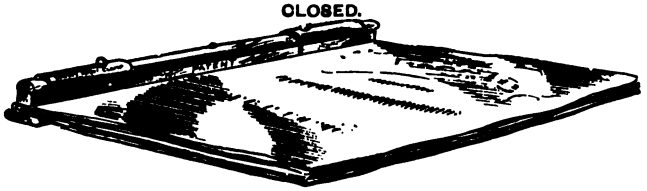

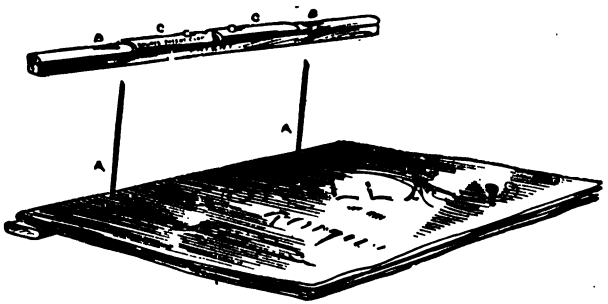

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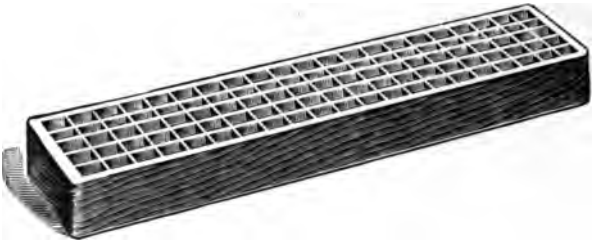

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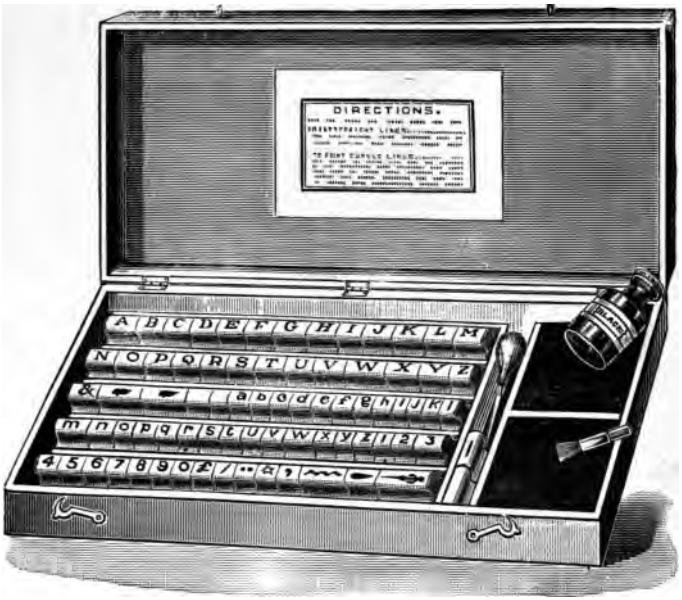

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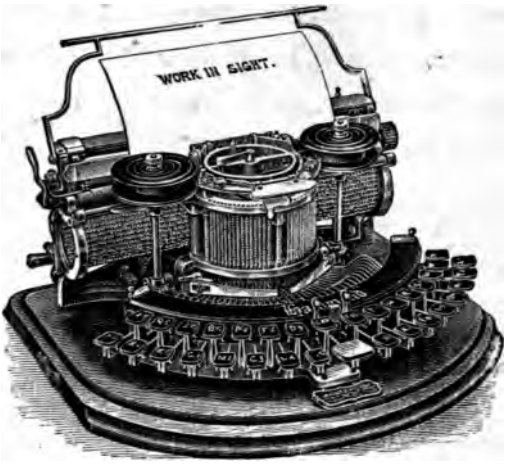

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